

# MISSISSIPPI RIVER COMMISSION\*

The Mississippi River Commission (MRC) was created by an act of Congress on Jun. 28, 1879. The Flood Control Act of May 15, 1928, authorized the Flood Control, Mississippi River and Tributaries (MR&T) Project. The Commission consists of three officers of the Corps of Engineers, one from the former Coast and Geodetic Survey (presently the National Oceanic and Atmospheric Administration), and three civilians, two of whom must be civil engineers. All members are appointed by the President with the advice and consent of the Senate.

During the fiscal year the Commissioners were: BG Robert Crear, who assumed command as Commander, Mississippi Valley Division, and President Designee of the MRC on Jun. 23, 2004; Mr. Sam E. Angel, reappointed as member, Nov. 15, 1999; Mr. R. D. James, civil engineer, reappointed Apr. 16, 2003; Mr. William Clifford Smith, civil engineer, reappointed Oct. 22, 1998; BG William T. Grisoli, Commander, Northwestern Division, member designee; Bruce A. Berwick, Commander, Great Lakes and Ohio River Division, member designee; RADM Samuel P. De Bow, Jr., NOAA, member designee; and COL Richard B. Jenkins, Secretary of the Commission (non-voting position).

The MRC is charged, under direction of the Secretary of the Army and supervision of the Chief of Engineers, with prosecution of improvements for flood control of the Mississippi River and of its tributaries and outlets in its alluvial valley, so far as they are affected by Mississippi River backwater, between Head of Passes, LA (mile 0), and Cape Girardeau, MO (1,006 miles AHP-Lower Mississippi mileage terminates at mile 954 AHP), and with prosecution of improvements in the interest of navigation between Cairo, IL (954 miles AHP), and Baton Rouge, LA (234 miles AHP); and for stabilization of the lower 7 miles of the right bank of the Ohio River, to former mouth of Cache River. It also is charged with prosecution of certain flood control works on the Mississippi River and tributaries, as far as they are affected by backwater, between Cape Girardeau, MO, and Rock Island, IL (1,437 miles AHP), and with prosecution of improvements on designated tributaries and outlets below Cape Girardeau for flood control, navigation, major drainage, and related water uses. Authorized

operations of the Commission below Cape Girardeau are conducted by District Engineers of New Orleans, Vicksburg, and Memphis Districts within the areas described below, in accordance with approved directives and programs and congressional appropriations therefore.

The 367th Session was held Apr. 19-23, 2004, on board the Motor Vessel *Mississippi* en route on the Mississippi River from Caruthersville, MO, to New Orleans, LA. Public meetings were held at Caruthersville, MO, Helena, AR, Natchez, MS, and New Orleans, LA. Approximately 275 people attended these public meetings. On Apr. 22, the Motor Vessel *Mississippi* made a trip to the Head of Passes (Mile Marker 0 on the Mississippi River) with many local interests on board. This session was adjourned in New Orleans, LA, on Apr. 23, 2004.

The 368th Session was held Aug. 16-27, 2004, on board the Motor Vessel *Mississippi* en route from La Crosse, WI, to Houma, LA. Public meetings were held at La Crosse, WI, Dubuque, IA, Alton, IL, New Madrid, MO, Memphis, TN, Greenville, IL, and Houma, LA. Approximately 515 people attended these public meetings. In Dubuque, IA, the Commissioners investigated the Riverside Museum, which has displays that emphasize the importance of the region's river system to the growth and development of the area. The Commissioners inspected Lock and Dam 11 at Dubuque, IA, Lock and Dam 18 at Gladstone, IL, and Lock and Dam 19 at Keokuk, IA. Following the public meeting in Houma, LA, the Commissioners performed a site visit of the Louisiana Coastal Area. This session was adjourned in Houma, LA, on Apr. 27, 2004.

The 369th Session was held on Sep. 27, 2004, at the Mississippi River Commission Headquarters in Vicksburg, MS. Approximately 5 people were in attendance for this meeting that was open to the public for observation but not for participation. The meeting was for the Commission's consideration of the Bayou Sorrel Lock Final Feasibility Report and Environmental Impact Statement, located in Louisiana.

Records of Proceedings of all sessions of the Mississippi River Commission are on file in the office of the President.

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\* Authorizing legislation (Tables 41-D and 41-E) is listed at the end of this chapter. All other tables are referenced in text and also appear at the end of the chapter.

### Additional information about the MRC.

During the fiscal year the MRC listened to, inspected alongside and partnered with more than 1,000 stakeholders, states, and local interests.

The Mission of the MRC includes balancing the requirements of flood control, navigation and the environment by providing water resource engineering direction and policy advice to the Administration, Congress, and the Army in a drainage basin that comprises 41 percent of the U.S. and two provinces of Canada, and to lead sustainable management and development of water and related resources for the nation's benefit and the people's well-being.

The MRC's unique makeup continues to serve the nation well (Military and Civilian). The 3 engineer officers from the Army; 1 uniformed officer from NOAA; 3 Civilian members (2 must be civil engineers).

- Since August 1997, MRC has resumed annual inspection of upper Mississippi River.
- Stakeholders and the public have requested MRC involvement in several major studies and projects.
- For projects and studies that require a broad watershed approach with multiple levels of interest, the Mississippi River Commission's authorities, resources and contacts have proven to be effective.

### The MRC has provided the following:

- Has established a connection between the public, a construction, operations and maintenance agency, and the executive branch of the U.S. Government.
- Has implementation oversight of a range of water resource activities.
- Has an established record of expertise and accomplishment.
- Has a clear charter that includes the entire watershed.
- Has established relationships and processes to make recommendations to the Chief of Engineers, the Administration and to inform Congress.

**New Orleans District:** Mississippi River project levees and river channel stabilization as required from Head of Passes, mile 0 to 320 AHP, construction of three salinity-control structures for fish and wildlife enhancement, two in lower Mississippi River Delta region, and one in the Mississippi-Louisiana Estuarine Area; Bonnet Carre and Morganza Floodways; maintenance and improvements of Mississippi River navigation channel from Baton Rouge, LA (mile 234 AHP), to mile 320; Baton Rouge Harbor (Devils Swamp); navigation improvement of Atchafalaya and Old Rivers from Mississippi River to Morgan City; control of Old and Atchafalaya Rivers; Atchafalaya Basin Floodways; flood control and drainage improvements in Bayou Cocodrie and tributaries, in Bayou des Glaives, and in Upper Pointe Coupee Loop area; and freshwater distribution from Atchafalaya River to Teche-Vermilion Basins.

**Vicksburg District:** Mississippi River project levees and river channel stabilization as required from upper limits of New Orleans District (mile 320 AHP) in vicinity of Black Hawk, LA, to Coahoma-Bolivar County line, MS (mile 620 AHP) on left bank, and to vicinity of mouth of White River, AR (mile 599 AHP), on right bank including south bank Arkansas River levee to vicinity of Pine Bluff, AR, and north bank levee to vicinity of Tucker on left bank of Plum Bayou, AR; bank stabilization in lower 36.1 miles of Arkansas River; maintenance and improvement of Mississippi River navigation channel between miles 320 and 599 AHP; Vicksburg and Greenville Harbors; specific fish and wildlife facilities in Tensas, Yazoo, and Big Sunflower Basins; a demonstration erosion control project in the Yazoo Basin; flood control and drainage improvements in Red River backwater area including leveed portions east and west of Black River and south of Red River; Jonesville, LA, Boeuf and Tensas Rivers, Bayou Macon Basins and tributaries, AR and LA, and Bayou Lafourche, LA; Yazoo River Basin, MS, including backwater area; Big and Little Sunflower Rivers, Deer Creek, and Steele Bayou, MS; and Grand Prairie Region and Bayou Meto Basin, AR, including provision for agricultural water supply.

**Memphis District:** Mississippi River project levees and river channel stabilization as required, from upper limits of Vicksburg District to north bank of Little River diversion channel, MO (1,003 miles AHP), a few miles below Cape Girardeau, MO, on right bank, and to Cache River diversion channel (967 miles AHP) above Cairo, IL, on left bank, including levees and revetment on right bank of Ohio River, in Mounds-Mound City area, IL; except operations above Cairo, IL, do not include channel stabilization on the

Mississippi River. Maintenance and improvement of Mississippi River navigation channel between mile 599 and 954 AHP and of Memphis Harbor, TN; specific fish and wildlife facilities in St. Francis Basin; levees in White River backwater area up to vicinity of Augusta, AR, and a pumping plant near mouth of White River; levees and pumping plants at De Valls Bluff and Des Arc, AR; channel improvements in Cache River Basin, AR; channel improvements in Big Creek and tributaries, AR; improvement works in St. Francis River Basin, MO and AR, including backwater area improvements in Belle Fountain Ditch and Drainage District No. 17, AR; Castor River diversion channel, MO, and L'Anguille River, AR; Wolf River Basin, TN; Obion and Forked Deer River Basins, TN; Reelfoot Lake area, including channel improvement for Bayou du Chien and Lake No. 9, TN and KY; West Kentucky tributaries, KY; Mud Lake pumping station, TN; and pumping plants and outlet structures in the Cairo-Mounds-Mound City area, IL. Channel improvements to Francis Bland Floodway Ditch (Eight Mile Creek), Arkansas; Whiteman's Creek Ten Mile and Fifteen Mile Bayous in West Memphis, and vicinity Arkansas; Horn Lake Creek and Tributaries, Mississippi; and Nonconnah Creek, Tennessee and Mississippi. Navigation channel and harbor improvements to Helena Harbor and vicinity, Arkansas at Mississippi River, mile 652 AHP. Channel improvements and pumping station for Helena, Phillips County, and vicinity, Arkansas and St. Johns Bayou and New Madrid Floodway, Missouri.

Field operations of the commission restricted to levee construction under Sec. 6, 1928 Flood Control Act (local interests contributing one-third of costs and furnishing rights-of-way) are conducted within the following limits by two districts reporting directly to the Commission on matters within their jurisdiction—St. Louis District: Mississippi River (Sec. 6) levees from upper limits of Memphis District to Clemens Station, MO (1,254 miles AHP), on right bank, and Hamburg Bay, IL (1,215 miles AHP), on left bank, and Illinois River from its mouth to mile 120 at Havana, IL. Rock Island District: Mississippi River (Sec. 6) levees from upper limits of St. Louis District to Rock Island, IL (1,437 miles AHP). For work accomplished see Table 42-N, page 42-50, Annual Report for 1975.

#### **MISSISSIPPI RIVER AND ALLUVIAL VALLEY BELOW CAPE GIRARDEAU, MO**

**Location and description.** The Mississippi River rises in Lake Itasca, MN, and flows generally southerly for 2,340 miles through the central portion of United States to empty into the Gulf of Mexico 115 miles below New Orleans. It is improved for barge navigation

for 1,832 miles to Minneapolis, MN. The Mississippi River and its major tributaries, the Missouri, Ohio, St. Francis, White, Arkansas, Yazoo, and Red-Old Rivers, drain 1,245,000 square miles in all or part of 31 states between the Rocky and Appalachian Mountains and part of two Canadian provinces. Below Cape Girardeau, MO, 53 miles above Ohio River, river bottomlands widen abruptly into an alluvial valley of 35,460 square miles which was originally subjected to flood overflow. A major part of the alluvial valley has been protected from floods by levees which confine floodflows within a floodplain having an average width of 5 miles. (See map of alluvial valley of Mississippi River, scale 1:500,000.) Observations made by Mississippi River Commission to Sep. 30, 1982, show approximate all-time maximum and minimum discharges between levees as follows: Cairo to White River, 2,000,000 and 70,000 cubic feet per second; thence to Red River, 2,150,000 and 90,000 cubic feet per second; thence to the Gulf of Mexico, 1,500,000 and 50,000 cubic feet per second in Mississippi River and 660,000 and 11,000 cubic feet per second in Atchafalaya River. As the 1927 floodflow was not con-fined between levees, maximum discharges recorded do not include entire flow of the 1927 flood, maximum of record below White River. High water and flood stages usually occur in late winter or early spring, but great floods such as that of 1937 occurred as early as January. Low water stages generally prevail from August to December. Extreme all-time high in stages recorded at representative gages (rounded to nearest foot) are 60 feet at Cairo, 49 feet at Memphis, 61 feet at Red River Landing, and 21 feet at New Orleans (Carrollton). The river is nontidal above Red River Landing where tidal amplitude rarely exceeds 0.1 foot during extreme low water.

**Previous projects.** For details see page 1944, Annual Report for 1932.

**Existing project.** The Mississippi River and Tributaries Project in the alluvial valley between Head of Passes, LA, and Cape Girardeau, MO, provides protection from floods by means of levees, floodwalls, floodways, reservoirs (in Yazoo and St. Francis Basins), bank stabilization, and channel improvements in and along the river and its tributaries and outlets insofar as affected by backwater of Mississippi River, including levee work on the main stem between Cape Girardeau and Rock Island. When completed, 23,621 square miles will be protected from the Mississippi River project flood. The project also provides for a 12- by 300-foot navigation channel between Baton Rouge, LA, and Cairo, IL; for salinity-control structures; and for channel realignment and improvement including bank stabilization and dikes to reduce flood heights, control natural tendency of river to lengthen by meandering,

and protect levees from being destroyed by caving banks. Locations of major main stem Mississippi River improvements are shown in Table 41-A and those for off-main stem tributaries are shown in Table 41-B. Pertinent data on dams and lakes are shown in Table 41-C. Authorizing and incorporating legislation are shown in Tables 41-D and 41-E. Summary of presently estimated Federal cost of authorized improvements is shown in Table 41-F. Construction of the existing project began in 1928 and has continued throughout ensuing years. Through Sep. 30, 2001, physical completion of the entire project is 87.1 percent.

**Recommended modifications.** None.

**Local cooperation.** The Flood Control Act of 1928, as amended, applies. Such requirements have, in general, been complied with by local interests.

**Terminal facilities.** See Port Series No. 21, 1990, for Ports of Baton Rouge and Lake Charles, LA; Port Series No. 20, 1990, for Port of New Orleans, LA; also folio of Flood Control and Navigation Maps of Mississippi River from Cairo, IL, to the Gulf of Mexico (59th edition), 1992.

**Project cost.** Total allotted for flood control, excluding maintenance charges through Aug. 18, 1941, chargeable under authorizations to Sep. 30, 2004, was \$7,607,088,388 (See Table 41-V.) (See also Tables 41-U, 41-W, and 41-X for additional financial statements.

### Alluvial Valley Mapping

**General.** Contoured quadrangles and general maps of the alluvial valley are available for departmental use and public distribution under prescribed regulations. Preparation, revision, and publication of quadrangle maps (scale 1:62,500) continued. Roadmap-type information brochures of principal portions of the overall project were published along with pamphlets on the subject of flood control and navigation. Maps and supplemental data sheets for active works were updated and published as required.

Approximately 0 flight-line miles of black-and-white aerial photography (various scales); 1,125 flight-line miles of color true photography; and 0 hours of oblique photography were flown along the Mississippi River and tributaries in the New Orleans District.

### Work accomplished in the Districts:

New Orleans District—The conversion of 1:62,500 scale quadrangle maps Centerville, Derouen, Rigolets,

Chef Menteur, Spanish Fort, and Bonnet Carre from manual to digital form was completed in FY 04.

Memphis District—There were no revisions to series conversion of U.S. Geological Survey in FY 2004. There were 840 miles of color aerial photography flown and 3,582 miles of black and white aerial photography flown in FY 04.

Vicksburg District—Series Published 1:62,500 scale quadrangle maps Lake Providence, LA-MS and Alsatia, LA-MS was completed in FY 00. Revision of Vicksburg, MS, LA is in progress. The conversion of 1:62,500 scale quadrangle map, Vicksburg, from manual to digital form was completed in FY 02.

### Floods

Streamflow observations during the fiscal year follow:

Memphis District—Mississippi River crest stage of 45.5 feet at Cairo gage on June 7, 2004, and maximum discharge of 1,072,000 cubic feet per second occurred at Hickman, KY on June 8, 2004, a crest stage of 27.8 feet at Memphis on May 24-25, 2002, and a maximum discharge of 1,039,000 cubic feet per second at Memphis on June 10, 2004.

Vicksburg District—The Mississippi River in the Vicksburg District – Peak stages and discharges on the Vicksburg District's reach of the Mississippi River were as follows: Arkansas City, 32.1 feet on Mar 19, 2004, and maximum discharge of 1,135,000 cubic feet per second; Vicksburg, 37.4 feet on Mar. 21, 2004, and a maximum discharge of 1,140,000 cubic feet per second; and Natchez, 44.4 feet on Mar 22, 2004, and maximum discharge of 1,135,000 cubic feet per second.

New Orleans District—On the Mississippi River, the Red River Landing gage recorded a maximum stage of 47.28 feet NGVD on July 3, 2004, and the New Orleans gage recorded a maximum stage of 12.59 feet NGVD on Feb. 24, 2004. On the Atchafalaya River, the Simmesport gage recorded a maximum stage of 29.87 feet NGVD on Mar. 23, 2004.

### Studies and Investigations

General investigations. Surveys and reports, authorized by laws and by Senate and House committee resolutions, were made as required. Collection and study of basic data continued.

A July 1997 resolution of the Committee on Transportation and Infrastructure of the U.S. House of Repre-

representatives authorized a study of flooding and other problems in the area west of the Atchafalaya Basin Floodway between Alexandria, Louisiana, and the Gulf of Mexico. A reconnaissance study was initiated in FY 1998 and completed in FY 1999. Initiation of a Feasibility Study was delayed until April 2003 when an FCSA was executed with Gravity Drainage District No. 1 of Rapides Parish, LA. The FCSA was amended in May 2004 to add LADOTD as a joint cost share sponsor for the feasibility study.

A May 1998 resolution of the Committee on Transportation and Infrastructure of the U.S. House of Representatives authorized a study of flooding and other problems in the area between Bayou Lafourche and the Mississippi River from Donaldsonville, Louisiana, to the Gulf of Mexico. A reconnaissance study was completed in FY00. Feasibility study was initiated in FY02, and continues in FY05.

An April 1992 resolution of the Public Works and Transportation of the U.S. House of Representatives Committee authorized a study of flooding and other problems east of the Atchafalaya Basin Floodway between Morganza, Louisiana, and the Gulf of Mexico. A feasibility study was completed in FY 2003 recommending a Federal project. The Energy and Water Development Appropriation Act of 1995 and the Water Resources Development Act of 1996 directed an expedited study of a lock the Houma Navigation Canal under the authority of the Morganza, Louisiana, and the Gulf of Mexico study. An interim feasibility study on the lock was completed in FY 1997 and was approved for preconstruction engineering and design in FY 1999. A supplement to the report was prepared in 2003 adding work-in-kind, Planning, Engineering, and Design on Houma Navigation Canal Lock and additional features continue in FY 2004.

A June 1998 resolution of the Committee on Environment and Public Works of the U.S. Senate authorized a study of the multipurpose flood control and agricultural water supply problems in the Boeuf-Tensas Basin of southeast Arkansas. A feasibility study was initiated in FY 2000.

### Mississippi River and Tributaries Levees

**Operations and results during fiscal year.** This feature consists of construction of new, and enlargement of existing, levees to approved grade and section; construction and restoration of levee berms; and construction, repair, and maintenance of roads on levees. Work accomplished is summarized in Table 41-N and further broken down as follows:

New Orleans District—Continued construction of levees in the Main Stem System.

Vicksburg District—Continued construction of levees in the Main Stem System. See Table 41-L.

Memphis District—Continued construction of levees in the Main Stem System. See Table 41-M.

**Condition as of Sep. 30.** (See Tables 41-K, 41-L, 41-M, and 41-N.) There are 1,609.8 miles of levees authorized for the Mississippi River below Cape Girardeau, of which 1,603.0 are in place with 1,382.9 built to approved grade and section. The Main Stem Levee System consists of 2,215.7 miles, of which 2,208.9 are in place with 1,928.7 miles completed to approved grade and section. Included in this system are 85.4 miles of levees and structures along the south bank of Arkansas River miles (all completed); 59.2 along the south bank of Red River (all completed); and 449.2 miles in the Atchafalaya River Basin, with 449.2 miles in place and 395.4 miles completed to grade and section (see Table 41-N). Of the authorized 677.8 miles of berms and seepage control measures, 562.6 are complete. Graveled or hard-surfaced roads have been constructed on 2,094.8 miles of these levees.

There are an additional 1,511.0 miles of authorized tributary levees in the MR&T Project, of which 1,277.3 miles, are in place with 1,085.7 to approved grade and section. Berms have been completed on 15.3 miles and 970.1 miles of gravelled or hard-surfaced roads have been constructed on the levees.

For summary of levee work Table 41-N.

### Mississippi River and Tributaries—Channel Improvements

**Operations and results during fiscal year.** Dredging: Mississippi River Main Stem — (See Table 41-G.) Work included dredging 23,683.1 cubic yards for maintenance of channel and harbor improvements. Minimum channel depth of 9 feet was maintained. Dredging was done with the following plant: Vicksburg District, channel maintenance was performed by government-owned dredge *Jadwin*. Memphis District channel maintenance dredging was performed by the Government-owned dustpan dredge *Hurley* and leased dustpan dredge *Pontchartrain*.

The MR&T Harbors maintained in Memphis District was Helena Harbor, Phillips County, AR, and Memphis Harbor (McKellar Lake), by leased cutter-head dredge *Pontchartrain*. MR&T Harbors maintained

in Vicksburg District were Greenville Harbor and cutterhead dredge *Butcher*.

Bank revetment and dikes: (See Table 41-H, 41-I, and 41-J.) Construction of 0 miles of new bank revetment and 44,740 squares of concrete mattress, for maintenance, along the Mississippi River was completed by Government plant and hired labor. Also, 2.29 miles of new dikes were constructed and required maintenance was performed.

Approximately 0.58 miles of new bank revetment was constructed on the Atchafalaya River.

Other work performed in the interest of navigation, supplementing maintenance dredging on Mississippi River between Cairo, IL, and Baton Rouge, LA, included removal of snags, wrecks, and obstructions; issuance of bulletins by the Vicksburg District providing information on available high-water velocities at selected locations; maintenance of bulletin boards showing daily gage readings at regular MRC gages; and contact pilot service furnishing navigation interests with latest information and advice on channel conditions and navigation interests. Cost of this work is given in Table 41-U.

**Condition as of Sep. 30.** In carrying out authorized channel improvement program between Baton Rouge and Cairo, 16 cutoffs were developed between 1933 and 1942. These, combined with chute channel development and alignment improvements, decreased channel length between these cities by about 170 miles. However, current velocities increased the attack on the banks and the river began to regain its length. As a result, the net shortening between 1933 and 1962 was 114 miles of the theoretical 170-mile cutoff.

There are now in place 1,042.0 miles of operative bank revetment and 310.9 miles of dikes on the lower Mississippi River. This amount of channel stabilization should prevent the river from regaining much more of its length due to meandering. A navigation channel 9 by 300 feet is being accomplished by revetment and dikes and maintained by dredging as required during the low-water season. Due to growing effectiveness of channel improvement program, average maintenance dredging requirements are steadily being reduced, and an increase in navigable depth is being obtained. Approximately 143.4 miles of foreshore protection have been constructed along the lower Mississippi River.

There are 88.2 miles of revetment and 5.9 miles of dikes on tributary channels as listed in Tables 41-H, 41-I, and 41-J.

## New Orleans District

### ATCHAFALAYA BASIN, LA

**Operations and results during fiscal year.** New work by hired labor: Real estate activities and planning for construction were continued.

Construction of levee enlargements and floodwalls continued on the east and west protection levees, and levees west of Berwick.

In FY04, three contracts were completed for levee enlargements at Wax Lake Outlet West and the closure of the Wax Lake West Drainage Structure. Also, a levee and pumping station contract for the Todd levee was completed. Three levee contracts will be completed in FY05 (W85 A & B, W52 & E69/73). Four additional contract awards are scheduled in FY05 (Wax Lake Outlet East, Melville Front & Ring & Krotz Springs Front and W46 & 58 Slides).

Maintenance by hired labor: Operation and maintenance of Bayou Boeuf, Berwick, and Bayou Sorrel Locks, Morganza Control Structure, condition and operation studies, and water control management activities were continued.

**Condition as of Sep. 30.** Construction was initiated Aug. 7, 1929, with commencement of the west protection levee from Bordelonville to Hamburg, LA. The project is 93 percent complete. The current estimated Federal cost is \$1,762,000,000 and non-Federal cost is \$11,000,000. Of the 449.2 miles of levees and floodwalls authorized for the Atchafalaya system, 394.5 miles are built to grade. See Table 41-K for status of levees.

Construction of the first 2.5 miles of the proposed 5 miles of channel was initiated in January 1958 and completed in July 1959, with 7,458,086 cubic yards excavated.

The remaining 2.5 miles were to be constructed when development of the initially constructed portion warrants expansion. Project expansion has not been necessary. Therefore, this feature was deauthorized on Nov. 2, 1979, under the provisions of Section 12, Public Law 93-251 (WRDA 74), as amended.

Major items remaining to be completed include completion of levees to grade and section, channel training works below Morgan City, modification of existing structures and construction of two freshwater distribution structures. Approximately 57.2 miles of

bank stabilization have been placed as shown in Table 41-H.

### **Flood Control**

#### **ATCHAFALAYA BASIN FLOODWAY SYSTEM, LA**

**Location.** The project lies in the lower part of the Atchafalaya Basin which is situated in south-central Louisiana. It lies in parts of Iberville, Iberia, Point Coupee, St. Martin, St. Mary and St. Landry Parishes. Further, it is limited to the part of the Atchafalaya River Basin that has been confined between protection or guide levees that are about 15 miles apart. The northern boundary, west of the Atchafalaya River, lies along the south right-of-way line for the Union Pacific Railroad near the south side of U.S. Highway 190 between the West Atchafalaya Basin Protection Levee (WABPL) and the west limits of the Town of Krotz Springs, thence southerly along the west limits of the town and easterly along the south limits of the town to the Atchafalaya River; east of the Atchafalaya River it lies along the southern right-of-way line for the Union Pacific Railroad. The eastern and western boundaries lie at the floodside toes of the East Atchafalaya Basin Protection Levee (EABPL) and WABPL, respectively. The area within these limits has been calculated at about 595,000 acres.

**Existing Project.** This project was authorized by the Supplemental Appropriations Act of 1985, Public Law 99-88. The project was reauthorized and amended by Section 601 of the Water Resources Development Act of 1986, Public Law 99-662 (hereafter WRDA 1986). The Corps of Engineers, New Orleans District, completed a comprehensive feasibility study report for the ABFS in January 1982 that recommended implementation for three separable elements including land acquisition, recreation, and water management units. Funding for the acquisition of the real estate feature made available by the Energy and Water Appropriations Bill of 1988, Public Law 100-202.

To date approximately 108,000 acres in developmental control and environmental easements have been acquired. 42,000 acres in additional easements are being negotiated leaving a balance of approximately 230,000 acres to acquire. Acquired 47,400 acres in fee, excluding minerals, from willing sellers. The recreational portion of the ABFS is cost-shared 50/50 between the Corps and the local sponsor and OMR&R is 100% non-federal. The recreation portion includes boat landings, canoe trails, 3-state type park facilities, project visitor center, primitive campgrounds, etc. Through FY 2004, planning had been initiated on several boat land-

ings and one is under construction. Through FY 2004, planning and design had been significantly advanced for the Buffalo Cove Pilot Water Management Unit.

**Local Cooperation.** Various Design Agreements and PCA's will be required between the Corps and the non-federal sponsor for project implementation.

**Condition as of Sep 30.** Continuing Real Estate acquisition and negotiations and advancing design for Water Management with the construction of Buffalo Cove scheduled for FY 2004 and advancing the planning for recreational features with the construction of Myette Point Boat Landing scheduled for FY 2004.

#### **BAYOU COCODRIE AND TRIBUTARIES, LA**

**Operations and results during fiscal year.** Maintenance by hired labor consisted of water control management.

**Condition as of Sep. 30.** Construction was initiated in June 1946 and is 57 percent complete, based on the current estimated Federal cost of \$20,400,000 and non-Federal cost of \$323,000. See page 2031, Annual Report for 1961, for description of completed work.

Work required to complete the project consists of enlargement of 13.5 miles of upper Bayou Boeuf, channel improvement of 25.3 miles of Bayou Cocodrie, enlargement of Bayou Courtableau from Washington, LA, to the west protection levee, and additional culverts through the west protection levee at 100 percent Federal cost in lieu of the previously authorized diversion channel from Washington to the Bayou Courtableau drainage structure.

With the termination of the Eastern Rapides and South Central Avoyelles project, it has become necessary to provide an adequate outlet structure solely for the Bayou Cocodrie and Tributaries project. The economic effects of this change along with current benefits estimates have caused the benefit-cost ratio for the project to be less than unity. As a result, the project has now been classified as inactive. If economic conditions change, the project could be reactivated.

#### **BONNET CARRE' SPILLWAY, LA**

**Operations and results during fiscal year.** Maintenance by hired labor: Condition and operation studies, water control management, and ordinary maintenance of the control structure and spillway continued.

**Condition as of Sep. 30.** Construction of the spillway was initiated in FY 1929. The control structure was

completed in 1931, levees were completed in 1932, and utility crossings were completed in 1936. The cost of the completed work is \$14,212,200.

It was necessary to operate the structure to reduce flood stages in 1937, 1945, 1950, 1973, 1975, 1979, 1983 and 1997. The structure was operated in 1994 to transfer fresh water from the Mississippi River to Lake Pontchartrain. The structure was operated for one month from March 17-April 17, 1997, to reduce flood stages.

Needle replacement began in FY 96 with the purchase of about 625 needles for \$80,000. The total replacement quantity required is approximately 7,000. An additional cable security system has been installed through needle eyes to prevent needles from dislodging during severe storms.

Natural Resources and Recreation Project Master Plan was approved and implemented in 1998. Operational Management Plan is under development. A staff of three Park Rangers is now stationed at the spillway to implement the recreation and natural resource programs.

## OLD RIVER, LA

**Operations and results during fiscal year.** Maintenance by hired labor consisted of operation and maintenance of the lock and control structures as required, condition and operation studies, water control management, maintenance of cleared areas, levee shaping, and engineering studies.

Natural Resources and Recreation Master Plan is under development. Operations and Maintenance Activity includes development of Old River Cooperative Visitor Center.

**Condition as of Sep. 30.** Construction began September 1955 and is complete at a Federal cost of \$292,273,000. Principal items completed are as follows: Low-sill structure, June 1959; overbank structure, October 1959; auxiliary structure, September 1986; levees and levee enlargements, October 1963; inflow and outflow channels for the low-sill structure, February 1961; inflow and outflow channels for the auxiliary structure, August 1987; navigation lock completed December 1962 and opened to navigation March 1963, at which time Old River was closed to navigation with a rock and earthfill dam; highway approaches and bridge over the lock completed March 1965. Approximately 9.4 miles of bank protection have been constructed at the inflow and outflow channels. (See Table 41-H for details of bank protection.)

## LOUISIANA STATE PENITENTIARY LEVEE, LOUISIANA

**Location.** The project is located near Angola, LA, in West Feliciana Parish, approximately 40 miles northwest of Baton Rouge, LA, and borders the Louisiana State Penitentiary along the Mississippi River and State of Mississippi state line.

**Existing Project.** The project provides for improving about 12 miles of existing levees along the Mississippi River which currently afford flood protection to the penitentiary on the left descending bank below Old River. The existing levees are owned and maintained by the State of Louisiana and are substandard with regard to Federal specifications. By improving the existing levees to Federal standards, the project will reduce the risk of flooding with its attendant property damage and threat to the lives of up to 5,100 inmates and about 1,750 employees and residents (527 reside on the penitentiary grounds). Funds to initiate preconstruction, engineering and design were appropriated in FY 97 and funds to initiate construction were appropriated in FY 98.

**Local Cooperation.** The limited Reevaluation Report was approved on July 2, 1999 and formed the basis for execution of the Project Cooperation Agreement which was approved on July 30, 1999. The local Sponsor, the Louisiana Department of Public Safety and Corrections has provided cash in the amount of \$5,171,000 in addition to furnishing the lands and damages (including mitigation lands) necessary to support their share of the project cost.

**Conditions as of Sep. 30.** Construction was initiated in FY 99 with the award of three contracts in Sep. 1999. Two contracts were for the levee upstream of Camp C and the other was for replacement of the existing drainage structure. All three contracts were completed in FY 01. Also, the final contract to enlarge the levee from Camp C to the main gate was awarded in Apr. 01. The entire project was physically completed in FY 03.

## Salinity Control Structures

## MISSISSIPPI DELTA REGION, LA

## CAERNARVON FRESHWATER DIVERSION STRUCTURE, BRAITHWATE, LA

**Location.** The Caernarvon structure is constructed in the Mississippi River Levee on the left descending bank at mile 81 AHP, just below the St. Bernard-Plaquemines Parish line.



**Existing Project.** The Caernarvon Freshwater Diversion Feature of the Miss. Delta Region Project is capable of diverting up to 8,000 cfs of River water into the Breton Sound Estuary for fish and wildlife habitat enhancement. River stages and the fresh water needs of the estuary, determined by monitoring data, establish the actual quantities to be diverted.

**Local Cooperation.** The Local Cooperation Agreement with the State of Louisiana was signed in June 1987. Cost sharing for initial construction and ongoing operations and maintenance is 75% Federal and 25% non-Federal. The project is operated and maintained by Plaquemines Parish, under the direction of the LA Department of Natural Resources.

**Condition as of Sep. 30.** Construction began in 1988 and was completed in 1991, at a Federal cost of \$19,700,000 and a non-Federal cost of \$6,500,000. Diversions have been ongoing, as needed, since August 1991. The goal of fish and wildlife habitat improvement has been met or exceeded, most notably in the areas of seed oyster availability on the public oyster grounds, a large variety and volume of recreational fishing and duck hunting.

#### DAVIS POND FRESHWATER DIVERSION STRUCTURE, LA

**Location.** The Davis Pond structure is constructed in the Mississippi River Levee on the right descending bank at mile 118 AHP, in St. Charles Parish, two miles Luling, LA.

**Existing Project.** The Davis Pond Freshwater Diversion Feature of the Miss. Delta Region Project will be capable of diverting up to 10,650 cfs of River water into the Barataria Bay Estuary for fish and wildlife habitat enhancement. Fresh water needs of the estuary, determined by monitoring data, will establish the actual quantities diverted.

**Local Cooperation.** The Project Cooperation Agreement was signed in April 1993 with the State of Louisiana. Cost sharing for initial construction and ongoing operations and maintenance is 75% Federal and 25% non-Federal. The project will be operated and maintained by St. Charles Parish, under the direction of the LA Department of Natural Resources.

**Condition as of Sep. 30.** Construction began in 1996 and was substantially completed in 2002, at an estimated Federal Cost of \$89,700,000 and a non-Federal cost of \$29,900,000 for the Construction Phase of this Feature. Diversions have been ongoing, as needed, since August 2002. Due to the short period of time

since diversions began, it is not possible to evaluate the goal of fish and wildlife habitat improvement quantitatively at this time. Final second lift levee construction and ongoing monitoring under the Construction Phase of this feature will continue into 2006.

#### MISSISSIPPI - LOUISIANA ESTUARINE AREAS, LA/MS

##### BONNET CARRE' FRESHWATER DIVERSION STRUCTURE, LA

**Location.** The Bonnet Carre' structure will be constructed in the upstream end of the Bonnet Carre Spillway structure, on the left descending bank of the Mississippi River at Mile 129 AHP, in St. Charles Parish, LA.

**Existing Project.** The Bonnet Carre Project will be capable of diverting up to 30,000 cfs of River water into the Lake Pontchartrain, Lake Borgne/Biloxi Marsh Estuarine Area for fish and wildlife habitat enhancement. Fresh water needs of the estuary, determined by monitoring data, will establish actual diversion quantities.

**Condition as of Sep. 30.** Before construction can proceed, a Project Cooperation Agreement must be signed with the States of Louisiana and Mississippi. Louisiana has withdrawn their support of the project until agreement between Louisiana and Mississippi can be reached on how the project will be operated. Federal cost of the Project is estimated to be \$87,200,000. The construction, operation and maintenance of the Project will be shared as follows: Federal, 75 percent; La, 20 percent; MS, 5 percent.

#### Vicksburg District

##### LOWER ARKANSAS BASIN, AR

**Condition as of Sep. 30.** Arkansas River levees. A total of 56.2 miles of the 61.5 miles of north bank levees and all of the 85.4 miles of south bank levees have been completed to approved grade and section. These levees above mile 36.1 are protected by bank-protection works constructed as a feature of project for Arkansas River and tributaries, AR and OK. For present status of this work, see report of Little Rock District. Below mile 36.1, needed bank protection is constructed with project maintenance funds. Little Bayou Meto gates and lifting mechanism were replaced during FY 88. Big Bayou Meto Gate operating mechanisms replaced FY 94, 95, 96.

## LOWER RED RIVER SOUTH BANK RED RIVER LEVEES, LA

**Operations and results during fiscal year.** New work by hired labor consisted of engineering studies. A Project Management Plan to address replacement of the Bayou Rapides Drainage Structure and Pumping Plant was approved in Aug 94. A major maintenance report was prepared and approved Sep. 95 recommending replacement of the drainage structure. Construction was completed in March 2004.

Maintenance by hired labor consisted of water control management and economic studies.

**Condition as of Sep. 30.** Construction was initiated in FY 92 and is complete. All of the 59.2 miles of levees authorized are completed to approved grade and section.

## TENSAS BASIN, AR AND LA

(a) **Boeuf and Tensas Rivers, and Bayou Macon, AR and LA.**

**Operations and results during fiscal year.** Planning and design on project features are complete. The Lake Chicot Pumping Plant and related features are complete and in operation. No further work on the Tensas River Project (Separable Element) will be initiated due to lack of commitment from a local sponsor to cost share remaining E&D and construction. This project has been placed in the "inactive" category.

**Condition as of Sep. 30.** Channel improvement has been accomplished on 741.7 miles of project streams, providing major drainage outlets for the tributary areas. Additionally, 61.0 miles of the Tensas River has been cleared and snagged. The GDM for the Tensas River Project, above mile 61, including Mill Bayou-Bayou Vidal is complete. However, no further work will be initiated due to lack of a local sponsor.

(b) **Red River backwater area.**

**Operations and results during fiscal year.** Planning and design continued on project features. All channel work required to get flows to the Tensas Cocodrie Pumping Plant and gravity structure is complete. The gravity structure and the pumping plant are complete and are being operated and maintained by contract. One mitigation item, the construction of two water control weirs, was completed in May 1988. Contracts for three additional mitigation features are complete. Construction of the Durham Prong mitigation feature is complete. Tensas-Cocodrie, Item 4-A, levee enlargement,

6.3 miles in length, was completed in September 1988, and Item 4-B, 2.4 miles of levee enlargement, was completed in October 1990. A contract for Item 2 was awarded in January 1991 and is physically complete. These contracts will complete the levee enlargement for all of the levee system, except 0.8 miles.

Work on the Below Red River Phase II GDM has been reclassified as inactive. Construction of the Sicily Island Area Levee project is complete.

**Condition as of Sep. 30.** Levees in Tensas-Cocodrie area are complete except for levee rising of 0.8 miles. The work comprised 93.1 miles of new levee, excluding 2.1 miles of high ground where no levees are required, and 86.9 miles of gravel road on levees. Construction of 63.4 miles of levee, Larto Lake to Jonesville levee system, has been completed. A levee grade reevaluation study for all levee systems in the Red River Backwater area was completed in Mar. 1985. The Sicily Island area project consists of 56 miles of new levee, 2 pumping plants, 11 miles of channel work, and structural mitigation features. Levee items 1C and 1D and Billy and Falcon Bayou were completed in FY 02 to complete the last items of construction.

## YAZOO BASIN, MS

**Operations and results during fiscal year.**

(a) **Big Sunflower River, etc.** The Project is authorized by the Flood Control Acts of 1944, 1946, 1950, 1962, and 1965. Completion of Swan Lake Levees has been delayed due to soil foundation problems. An Engineering Documentation Report is being prepared to evaluate two proposals presented in a Value Engineering Study completed in FY04. The report is scheduled for completion in FY05. Main Canal and Black Bayou are complete.

## Mitigation for Upper Steele Projects

Mitigation for the unavoidable environmental losses is now underway. Approximately 5,569 acres of cleared lands have been obtained in the Yazoo Basin to mitigate the environmental losses resulting from construction of the Upper Steele Bayou Projects. Most of this land has been reforested and will be managed for wetlands, and terrestrial resources. All lands acquired for mitigation are from willing sellers to offset environmental losses from this project.

(b) **Flood Control Reservoirs**

(1) **Arkabutla Lake.** (See Table 41-C.) The dam and appurtenant structures were maintained and oper-

ated. Clearing of tributary streams in the lake area was continued. Maximum pool elevation in the lake was 226.1 feet NGVD on Jul. 9, 2004, and storage in flood control pool was 211,700 acre-feet. Peak 24-hour inflow was 36,600 cubic feet per second on Feb. 6, 2004. On Sep. 30, 2004, the pool elevation was 217.2 feet NGVD, and storage in the flood control pool was 90,684 acre-feet.

(2) **Enid Lake.** (See Table 41-C.) The dam and appurtenant structures were maintained and operated. Rehabilitation of boat channels and snagging and clearing of tributary streams in the lake area continued. Maximum pool elevation in the lake was 255.7 feet NGVD on Jul. 20, 2004, when storage in the flood control pool was 371,600 acre-feet. Peak 24-hour inflow was 26,900 cubic feet per second on Feb. 6, 2004. On Sep. 30, 2004, pool elevation was 246.5 feet NGVD and storage in the flood control pool was 217,404 acre-feet. 4,500 ac. ft. of storage in conservation pool was reallocated to municipal and industrial water supply in June 1998.

(3) **Grenada Lake.** (See Table 41-C.) Construction of remaining public-use facilities has been deferred pending development of cost-sharing agreements with local interests for construction and non-Federal operation and maintenance, consistent with projects for which recreation facilities are being constructed under the provisions of the Federal Water Project Recreational Act of 1965 (Public Law 89-72), as amended. Maximum pool elevation in the lake was 223.0 feet NGVD on Jul. 6, 2004, when storage in the flood control pool was 885,400 acre-feet. Peak 24-hour inflow was 36,300 cubic feet per second on Feb. 6, 2004. On Sep. 30, 2004, the pool elevation was 208.2 feet NGVD and storage in the flood control pool was 340,400 acre-feet.

(4) **Sardis Lake** (See Table 41-C.) The dam and appurtenant structures were maintained and operated. Clearing of tributary streams in the lake area continued. Maximum pool elevation in the lake was 267.8 feet NGVD on Jul. 15, 2004, when storage in the flood control pool was 896,200 acre-feet. Peak 24-hour inflow was 31,700 cubic feet per second on Feb. 8, 2004. On Sep. 30, 2004, the pool elevation was 255.8 feet NGVD and storage in the flood control pool was 484,500 acre-feet. A construction contract was awarded for the seismic remediation of Sardis Dam utilizing driven pre-stressed concrete piling as a result of an extensive study and evaluation of the expected performance of the dam during a major earthquake in the New Madrid earthquake zone of the central United States.

(c) **Greenwood, Yazoo City and Belzoni protection works.** Contract forces continued operation and

maintenance of levees, drainage facilities, and pumping plant.

(d) **Main stem.** Contract forces continued operation and maintenance of channels, levees, and drainage facilities.

(e) **Reformulation Study.** The uncompleted portions of the Yazoo Basin construction program are being reformulated. This reformulation study includes investigations of the engineering, economic, and environmental aspects of the basin and is being accomplished in 4 phases. These studies will evaluate reasonable arrays of alternatives to the project features that remained after construction of items that were budgeted and scheduled for award in FY 90. The Upper Steele Bayou and Upper Yazoo Project reports were approved on May 25, 1993 and Jun. 21, 1994, respectively. Concerning the final 2 phases, the Yazoo Backwater Reformulation Study began in FY 93 and the Tributaries Reformulation study began in FY 95. The Backwater Study includes nonstructural, structural, and combination plans. Nonstructural features include conservation and water management easements and reforestation of cleared agricultural lands. Structural features include an array of various capacity pumping stations and a levee alternative. A draft report was released for public review in Sep 2000 with a final report scheduled in FY 05. The Yazoo Tributaries Reformulation Study is evaluating flood control requirements on nine project features. Study efforts were suspended in 2000 but have been reinitiated in FY05.

(f) **Delta Headwaters Project.** The Delta Headwaters Project (DHP), a joint project with the USDA NRCS was initiated by FY 85 appropriations as a continuation on streambank erosion control efforts. The purpose of the project is to demonstrate the applicability of a systems approach to the design of erosion, sedimentation, and flood control works by applying this approach to 16 demonstration watersheds in the Yazoo Basin hill area. During FY 04, work continued in the DHP toward development of the systems plans and implementation of a monitoring program. Cumulative through FY 04, the District has completed the construction of 195 low drop grade control structures, 191 miles of bank stabilization, 17 miles of channel improvement, 53 box culverts, 5 high drop grade control structures, 1,246 riser pipe grade control structures, 7 floodwater retarding structures, and 9 miles of levees.

(h) **Tributaries.** Construction:

**Levees.** Levee work associated with Pelucia Creek is complete.

(i) **Upper Yazoo Projects.** The first 12 items of channel improvement, approximately 106 miles, and nine drainage structures have been completed. This work extends from Yazoo City, Mississippi, to Money, Mississippi.

The Fort Pemberton Flood Control Structure was completed on Apr. 29, 1991.

Roebuck Lake and Fort Loring water control structures and Tchula Lake weirs were completed in FY 95.

Design efforts for Channel Item 6 are underway. Item 6A is scheduled for award in Feb. 05 and Item 6B for Sep. 05.

The Alligator-Catfish water control structure was completed in FY 98. This structure has been renamed the J. Tol Thomas Water Control Structure.

**Mitigation for Upper Yazoo Projects.** Mitigation for the environmental impacts is now underway. Approximately 10,919 acres of cleared, frequently flooded agricultural lands have been obtained in the Yazoo Basin area of Mississippi to mitigate the environmental losses resulting from construction of the Upper Yazoo Projects, Big Sand Creek, Pelucia Creek, and Ascalmore-Tippo Bayou construction projects. Most of this land has been reforested and will be managed for terrestrial aquatic, wetlands, and waterfowl. A total of 17,000 acres of mitigation will be acquired from willing sellers for this project.

(j) **Yazoo Basin backwater.** The Yazoo area backwater levees are complete, including the backwater levee from the Mississippi River levee to the west levee of the lower Auxiliary Channel, the Little Sunflower River drainage structure, and the connecting channel from the Steele Bayou drainage structure to the Big Sunflower River.

The Satartia area backwater levee is complete. Rocky Bayou area levee Items 1A and 1B have been completed. Completed backwater levees will require raising to provide the degree of protection intended based on the project design flow line developed for the Mississippi River following the 1973 flood.

Four Greentree Reservoirs and pumping stations have been constructed to mitigate for the waterfowl impacts of the project.

Mitigation of the terrestrial impacts is now underway. Approximately 8,800 acres of cleared, frequently flooded, agricultural lands have been obtained in the Yazoo Backwater area of Mississippi to mitigate the

terrestrial losses resulting from construction and operation of the Yazoo Area and Satartia Area levees projects. This land has been reforested and will be managed for terrestrial wildlife. An additional 3,617 acres of mitigation is being considered as part of the Yazoo Backwater Reformulation Project.

**Condition as of Sep. 30.** The first feature of Yazoo Basin project was started in 1936, and the total project is about 65 percent complete.

### Memphis District

#### BAYOU METO BASIN, AR

**Location.** Project is located in east central Arkansas in Lonoke, Pulaski, Prairie, Jefferson, and Arkansas Counties.

**Existing Project.** The major problems are agricultural flooding, loss of environmental resources, and the depletion of the alluvial aquifer, which provides essentially all the water used for agricultural irrigation and baitfish farming and supports area wetlands. Features being evaluated include diversion of excess water from the Arkansas River with delivery through a system of new canals, existing streams, and pipelines to the water depleted areas; channel improvements and pumping station(s) to provide outlets for reduced flooding; waterfowl conservation and management measures; and other environmental restoration and enhancement features. The sponsor is the Bayou Meto Water Management District.

**Operations and results during fiscal year.** Congress added funds in FY 2004 to complete the general reevaluation report which is scheduled for completion in December 2004.

**Condition as of Sep. 30.** Local interests have formed an entity capable of providing the legal and financial assurances for project implementation and they desire the earliest possible project completion.

#### CACHE BASIN, AR

**Location.** The project is a flood control project located in the Cache River and Bayou DeView Basins in northeastern Arkansas.

**Existing Project.** The authorized plan of improvement consists of improving the channels of the Cache River and Bayou DeView to provide adequate drainage outlets and reduce the frequency, depth and duration of flooding. The work consists of clearing, cleanout, enlargement, and realignment on approximately

154 miles of the Cache River and 77 miles of Bayou DeView and the acquisition of up to 70,000 acres of land for fish and wildlife management, recreation and environmental purposes. The project has a benefit cost ratio of 4.2 to 1.0.

**Operations and results during fiscal year.** No contracts were awarded or completed during the fiscal year.

**Condition as of Sep. 30.** Project was initiated during 1972 and is 4 percent complete. Construction of the authorized project was stopped in 1978 due to environmental opposition. Reevaluation studies of the authorized plan were initiated in June 1987 to provide a more environmentally balanced plan. The reevaluation effort was terminated on Dec. 15, 1994, due to a lack of local sponsorship. On Dec. 20, 2000 the Memphis District signed a letter to transfer 6,091 acres of the acquired mitigation lands over to the U.S. Department of Interior. In May 2002, Arkansas Game and Fish Commission Signed a Licensing Agreement to manage 1,868 acres of excess mitigation lands. These lands can be applied to other Corps projects as needed.

Major floods have occurred in at least three of the last four crop seasons leading to increasing local requests to state and U.S. legislators for assistance in resolving the problems in the vicinity of Grubbs and upstream. In October 2003, the Arkansas Joint Interim Agriculture, Forestry, and Economic Development Committee approved an Interim Study Proposal to identify problems and determine appropriate solutions for floods due to the Cache River log jam in Jackson County near the town of Grubbs and to work with the Corps of Engineers on the feasibility of removing the blockage from the river. Local interests want to pursue a Section 205 project, but because it is within the authorized limits of the Cache River Basin project, congressional authorization would be required to use Section 205 authority.

In a letter dated 11 February 2004, Ducks Unlimited and Arkansas Game and Fish Commission requested that the Corps conduct a study for an environmental restoration project on the lower seven miles of Cache River.

#### FLETCHER CREEK, TN

**Location.** The Fletcher Creek basin, which has a drainage area of 32 square miles, is a tributary of the Wolf River. The basin drains from the northeast to the southwest and discharges into the Wolf River just downstream of the I-40 expressway.

**Existing Project.** This area has experienced tremendous residential and commercial growth including the Wolf-Chase Galleria Mall and related commercial development around the mall. Approximately 150 residents along Fletcher Creek had to be evacuated in November 2001 due to extensive flooding. The 100-year frequency flood elevation has increased two feet or more, due to widespread development in the area. This basin was studied under the Memphis Metropolitan Area reconnaissance study. The purpose of the study is to evaluate the need for improvements for flood control, ecosystem restoration, water quality, and related purposes associated with watershed management. The City of Memphis and Shelby County, Tennessee, have indicated a financial capability to cost-share the feasibility phase of the study.

**Operations and results during fiscal year.** Funds appropriated in FY 2004 are being used to negotiate the study scope, complete the Project Management Plan, and draft the Feasibility Cost Share Agreement.

**Condition as of Sep. 30.** Completed a Cost Sharing Plan, but have not found Cost Sharing Sponsor.

#### FRANCIS BLAND FLOODWAY DITCH (EIGHT MILE CREEK), ARKANSAS

**Location.** The project is located in the City of Paragould, AR.

**Existing Project.** The existing project consists of 12.5 miles of channel improvements. Eight miles of channel enlargement will occur in the rural downstream area of Paragould. Three and a half miles of enlargement will occur in the City of Paragould along with one mile of channel riprap/stabilization. The project will provide 100 year flood protection within the City of Paragould.

**Local Cooperation.** A project Cooperation Agreement (PCA) was assigned in June 1996.

**Conditions as of Sep. 30.** The contract work on the rural eight miles of channel has been completed. Construction on the first phase of the urban section of channel enlargement was completed in November 2003.

#### GERMANTOWN, TN

**Location.** The study area is located in the city of Germantown, in Shelby County, Tennessee.

**Existing Project.** The study investigated possible solutions to the flooding, erosion, and water quality

problems impacting three drainage basins: Miller Farms Ditch and Lateral D, tributaries to the Wolf River and Howard Road Outfall, a tributary to Nonconnah Creek.

**Operations and results during fiscal year.** The study investigated possible solutions to the flooding, erosion, and water quality problems impacting this area. Only one of the three drainage basins investigated (Lateral D) resulted in a plan that is economically feasible; however, the outputs for this plan (erosion control) are not high priority outputs and not budgetable. Therefore, the feasibility study was terminated and the report was not processed for approval. The estimated cost of the Lateral D plan is \$6.0 million and the benefit to cost ratio is 1.44.

**Condition as of Sep. 30.** The city of Germantown is seeking authority from Congress to construct not only Lateral D, but also locally developed plans for Miller Farms, Howard Road, and other drainage basins in the area, by requesting a modification to Section 219 of WRDA 1992, as amended.

#### GRAND PRAIRIE REGION, AR

**Location.** Project is primarily located in Arkansas and Prairie Counties and a small portion in Lonoke and Monroe Counties.

**Existing Project.** This project will provide for agricultural water supply, ground water protection, and fish and wildlife restoration and enhancement. The project includes a major pumping station, conveyance channels, and conservation measures for the Grand Prairie area. The sponsors are the State of Arkansas and the White River Regional Irrigation Water Distribution District.

**Operations and results during fiscal year.** FY 2004 funds were used to award a contract for the initiation of the pumping station, (1 continuing contract, estimated at \$28,000,000 total).

**Condition as of Sep. 30.** Construction on the pumping station should begin during the summer of FY 2005.

#### HELENA AND VICINITY, AR

**Location.** The project is located in the City of Helena, AR.

**Existing Project.** The existing project consists of 1.41 miles of earthen and concrete channel enlargement within the city limits of Helena, AR. The concrete chan-

nel was constructed primarily under streets while the earthen channel is in an undeveloped section of the city.

**Local Cooperation.** The Project Cooperation Agreement (PCA) was signed in August 1997.

**Conditions as of Sep. 30.** Construction on the concrete channel the final item of construction was completed in July 2004.

#### HORN LAKE CREEK AND TRIBUTARIES INCLUDING COW PEN CREEK, TENNESSEE AND MISSISSIPPI

**Location.** Horn Lake Creek is located in northwest Desoto County, MS and southwest Shelby County, TN.

**Existing project.** The project was approved for construction on Nov. 17, 1986, under authority of Title IV, Section 401 of the 1986 Water Resources Development Act. The project consists of 3.5 miles of drift removal and 2.75 miles of channel clearing on Horn Lake Creek; 2.1 miles of channel clearing on Rocky Creek and 0.62 miles of channel clearing and 1.85 miles of channel enlargement on Cow Pen Creek. The project will provide 1.1-year flood frequency protection on Horn Lake and Rocky Creeks and 25-year flood frequency protection on Cow Pen Creek. The construction is complete.

**Local Cooperation.** A Local Cooperation Agreement was executed with the Horn Lake Creek Watershed Drainage District on Feb. 26, 1992.

**Condition as of Sep. 30.** The final contract for work on Cow Pen Creek was awarded in Sep. 1997 and was completed in Sep. 1998. Floodplain mapping revisions are scheduled for completion in Sep. 2005.

#### HORN LAKE CREEK MODIFICATION, TENNESSEE AND MISSISSIPPI

**Location.** Horn Lake Creek is located in northwest Desoto County, MS, and southwest Shelby County, TN.

**Existing project.** A limited reevaluation report of the project for flood control, Horn Lake Creek and Tributaries, Tennessee and Mississippi, authorized by Section 501 of the Water Resources Development Act of 2000, to determine the feasibility of modifying the project to provide urban flood protection along Horn Lake Creek.

**Local Cooperation.** A Design Agreement for a reevaluation study was executed with the Horn Lake Creek Drainage District on Oct. 5, 2001.

**Condition as of Sep. 30.** Reevaluation studies were initiated in Oct. 2001 and scheduled for completion in Dec. 2004.

## LOWER WHITE RIVER, AR

### Operations and results during fiscal year.

(a) **Augusta to Clarendon Levee.** There were no contracts awarded or completed during the fiscal year.

(b) **Clarendon Levee.** There were no contracts awarded or completed during the fiscal year.

(c) **White River Backwater.** There were no contracts awarded or completed during the fiscal year.

### Condition as of Sep. 30.

(a) **Augusta to Clarendon Levee.** Project was initiated during 1946 and is 39 percent complete. There were no contracts awarded or completed this fiscal year.

(b) **Clarendon Levee.** There were no contracts awarded this year.

(c) **White River Backwater.** Hired Labor slide repairs on the White River Backwater Levee completed.

## MISSISSIPPI RIVER LEVEES

**Operations and results during fiscal year.** Minor maintenance on levees is performed by the local interests and major maintenance is performed as required for slide repairs, road rehabilitation, and other similar work by the U.S. Army Corps of Engineers.

**Mississippi River Levees Construction.** Hillhouse, MS relief wells P-2 awarded 17 June 04 is 50% completed. St. Johns – New Madrid box culverts and levee closure awarded 4 Aug 04 has not started. Caruthersville, MO outlet ditches awarded 27 Aug 04 is 5% completed. Pecan Pt., AR relief wells awarded 27 Aug 04 is 10% completed. Austin, MS relief wells awarded 14 July 03 is 30% completed. New Madrid, MO riverfront improvements awarded 2 Aug 02 is 75% completed.

**Mississippi River Levees Maintenance.** Initiate Culvert Rehabilitation – Mounds Creek, IL; Initiate Culvert Replacement – New Madrid, MO Culvert 1/10+00; Initiate and Complete Levee Slope Stabilization – Barnes Ridge Levee, MO; Initiate and Complete Levee Gravel Placement – Osceola and O'Donnell Bend, AR; Initiate and Complete West Memphis Overbank Scour Repair, AR; Continue Culvert Replacement

– Hwy. 21/Graveyard Slough at Tiptonville, TN; Initiate and Complete Drinkwater II Pumping Station, Environmental Improvements, MO.

**Channel Improvement. Channel Improvement.** Stone Dike Construction at Caruthersville-Linwood Bend, MO, awarded July 04, 95% complete as of 30 September 04. Driver Bar, TN Bendway Weir Construction awarded July 04 and completed September 04. Stone dike Construction at Stone Dike Construction at Forked Deer, TN, awarded June 03, completed April 04.

## NONCONNAH CREEK, MS AND TN

**Location.** The project is located in southern Shelby County and provides flood protection for approximately half of the city of Memphis, TN.

**Existing Project.** The project is made up of five separable elements, flood control, environmental preservation, recreation and conditionally authorized extensions to the flood control and recreation elements. The flood control element is under construction and consists of 18.2 miles of channel enlargement, grade stabilization, and vegetative cleanout. The environmental element consists of a 33-acre nature area. The recreation element consists of 8.8 miles of biking/hiking trails. WRDA 2000 conditionally authorized extending the flood control element upstream about five miles and the recreational element from 8.8 to 27 miles, if the Secretary finds the work justified.

**Local Cooperation.** The project sponsor for the authorized project is the City of Memphis, TN and the Project Cooperation Agreement (PCA) was signed on 23 July 1990. The PCA covers only the flood control features of the project. Amendment of the PCA is required to incorporate the Environmental & Recreation features of the project. The project sponsor for the conditionally authorized extensions is Shelby County, TN. A Design Agreement was signed on 16 January 2002

**Operations and results during fiscal year.** Item 1, Phase 2, Riverport Road Scour Repair contract awarded in August 2003.

**Condition as of Sep. 30.** Project of the authorized 18.2 miles of flood control improvements (exclusive of the bridge/utility protection sites) is 70 has been percent completed. Item 1, Phase 2 is 60% complete. A General Reevaluation Study for the flood control and recreation extensions was completed in 2004. The study produced no viable flood control option and recreation in the extension area.

## ST. FRANCIS BASIN, AR AND MO

### Operations and results during fiscal year.

#### Construction

Highway 90, channel restoration, awarded Sep. 12, 2000. Ditch 1 & 6, Channel Enlargement, MO., awarded Sept. 20, 2001, and Honey Cypress, AR Channel Enlargement awarded 9 Aug 02 are complete. Contracts for Fifteen Mile Bayou, Item 1 bridge relocations at U.S. Highway 79, awarded May 2003 and County Road at mile 13.8, awarded Aug 2003 are 67% and 45% complete respectively.

**Condition as of Sep. 30.** Project initiated 1937. Project is 90 percent complete

#### Maintenance

Complete Levee Slope Restoration – Above Tulot, AR; Continue Scour Repairs at Bridges – Madison to Marianna, AR; Initiate and Complete – Ditch 56 Culvert Replacement at Rivervale, AR; Initiate DD #17 Fuel Tank Replacement, AR; Initiate and Complete Scour Repairs - Big Slough Ditch at Hurricane Creek, AR; Complete Scour Repairs – Castor River Block Hole, MO; Continue Channel Cleanout – Ditch 1 Lower, MO; Initiate and Complete Scour Repair – St. Francis River at Highway U, MO; Initiate and Complete Scour Repair – Ditch 66 and Ditch 1 Lower, MO; Initiate and Complete Channel Cleanout – Ditch 290, MO; Initiate Scour Repairs – Mingo Ditch at County Road (CR) 691, MO.

## ST. JOHNS BAYOU AND NEW MADRID FLOODWAY

**Location.** This flood control project is located in the bootheel of MO. It covers two drainage basins adjacent to the Mississippi River: the St. Johns Bayou Basin (450 sq mi) and the New Madrid Floodway (180 sq mi).

**Existing Project.** The First Phase of the authorized project includes 27.6 miles of channel improvements, pumping stations, all seasonal ponding easements, and appropriate mitigation features. The First Phase project has a benefit-cost ratio of 1.2 to one, with average annual benefits of \$4,567,000 (Final RSEIS, June 2002, p. B-41). St. John Levee and Drainage District is the cost-sharing sponsor.

**Condition as of Sep. 30.** Remaining construction work on the First Phase includes approximately 19.7 miles of channel improvements and two pumping stations. Water Quality Certification was issued for the

project in Jun 2003. A contract was awarded for the New Madrid pumping station in Sep 2004. Construction was not initiated pending resolution of a Complaint and Motion for Preliminary Injunction which was filed in Federal Court in Sep. 2004.

## WEST KENTUCKY TRIBUTARIES, KY

**Location.** The project is a flood control project located on the Obion Creek in Southwest Kentucky.

**Existing Project.** The drainage basin is 324 square miles of rural area. The approved plan of improvement consists of 42 miles of channel enlargement, the placement of excavated material embankment along 8.2 miles of the north bank below the valley mouth, and acquisition of 6,000 acres of mitigation land. The project has a benefit cost ratio of 1.4 to 1 with average annual benefits totaling \$1,576,000. Project is currently inactive due to lack of local support; however, in the spring of 1996, locals have formally requested assistance in developing an environmentally sensitive plan of improvement. A preliminary time and cost estimate for a general reevaluation have been prepared.

**Operations and results during fiscal year.** No contract awarded or completed during fiscal year.

**Condition as of Sep. 30.** Project was initiated during 1978 and is 4 percent complete.

## WEST TENNESSEE TRIBUTARIES, TN

**Location.** The project is a flood control project located along the Obion and Forked Deer Rivers and tributaries in west Tennessee, in Weakley, Madison, Gibson, Obion, Dyer, Crockett, Lauderdale and Haywood Counties.

**Existing Project.** The project consists of 225 miles of channel improvements on the Obion and Forked Deer Rivers and construction of 7.6 miles of levees to provide adequate drainage outlets and reduce flooding; 174 water control structures, 216 erosion control structures, 37 miles of water management connector channels to restore bottomland hardwoods and fisheries; and the acquisition of 32,000 acres of mitigation lands. Only 93 miles of the authorized channel improvements have been completed and 13,527 acres of the mitigation lands purchased.

**Local Cooperation.** The project sponsor is the state of Tennessee acting through the West Tennessee River Basin Authority (WTRBA).



**Operations and results during fiscal year.**

(a) **Forked Deer River and principal tributaries, TN.** Forked Deer River channel improvement is 14 percent complete.

(b) **Obion River and principal tributaries, TN.** Obion Rivers channel improvement is 68 percent complete.

(c) **Riprap Protection at four sites Dyer, Crockett, Haywood, and Lauderdale** awarded Aug. 29, 1996, is complete.

Riprap protection at 3 sites Dyer, Crockett, and Lauderdale counties, awarded on Aug. 10, 1998, and was completed Aug. 18, 1999. Shutdown plan control structures at 3 sites, Dyer and Lauderdale counties awarded on Aug. 3, 1998, was completed Sep. 1999.

**Condition as of Sep. 30.** West Tennessee Tributaries Project is 60 percent complete.

**WOLF RIVER, MEMPHIS, TN**

**Location.** The Wolf River is located in Hardeman, Fayette, and Shelby Counties, TN, and Tippah, Marshall, and Benton Counties, MS.

**Existing Project.** The authorized project consists of six main channel weirs and eighteen tributary weirs for grade stabilization, two cutoff prevention weirs on the main channel, trails, and wildlife corridors in Shelby County, and three boat ramps (two in Shelby County and one in Fayette County.) Estimated annual benefits include over 2,144 annual habitat unit values and \$414,000 in recreational benefits. The project sponsors are Shelby County, Tennessee and the Chickasaw Basin Authority.

**Operations and results during fiscal year.** A Project Cost Sharing Agreement (PCA) was signed by Shelby County, the Chickasaw Basin Authority and the Corps of Engineers on 14 January 2004. Funds added by Congress in FY 2004 are being used to award the first construction contract consisting of three stabilization weirs, two cutoff prevention weirs and associated access roads.

**Condition as of Sep. 30.** Item 1 Channel Stabilization, Weirs and Earthen Berms contract was awarded in September 2004.

**TABLE 41-A                      MISSISSIPPI RIVER IMPROVEMENTS**

<b>Mileage Above Head of Passes</b>	<b>Locality</b>	<b>Improvement</b>	<b>Remarks</b>
0-957 <sup>1</sup>	Head of Passes, LA-Cairo, IL	Dredging, revetment, and contract work	--
10-81	The Jump-New Orleans, LA	Main line levee, right bank	--
11-25	Baptiste Collette-Bayou Ostrica, LA	Local levees, left bank	--
118	Davis Pond, LA (formerly Myrtle Grove, LA)	Salinity control structure, right bank	Authorized by Public Law 89-298 (HD 308/74/1). Included in MS Delta Region, LA feature. Postauthorization change report, approved June 1987.
81	Caernarvon, LA	Salinity control structure, left bank	Authorized by Public Law 89-298 (HD 308/74/1). Included in MS Delta Region, LA feature.
44-91	Bohemia, LA-New Orleans, LA	Main line levee and floodwall, left bank	--
81-96	New Orleans, LA	Main line levee, right bank	Authorized by Public Law 81-516.
91-104	New Orleans, LA	Main line levee and floodwall, left bank	Authorized by Public Law 81-516.
96-279	New Orleans-Morganza, LA	Main line levee, right bank	--
104-234	New Orleans-Baton Rouge, LA	Main line levee, left bank	--
127-129	Bonnet Carre' Floodway, LA	Regulating spillway, left bank	--
129	Mississippi-Louisiana Estuarine Areas, LA/MS (Bonnet Carre')	Salinity control structure, left bank	Authorized by Public Public Law 100-676
129-234	Bonnet Carre'-Baton Rouge, LA	Main line levee, left bank	--
235	Baton Rouge Harbor	Devils Swamp barge channel	Modified by Public Law 87-874.
279-287	Morganza Floodway, LA	Regulating spillway, right bank	--
287-303	Morganza-Old River, LA	Main line levee, right bank	Extends up south bank of Old River to Barbre Landing.
303-314	Old River, LA control	Levee closure and enlargement, low and high water spillway structures, navigation lock, and approach channels, right bank	Authorized by Public Law 83-780.
314-572	Old River-Cypress Creek, AR	Main line levee, right bank	Joins Arkansas River, south bank levee.
437	Vicksburg Harbor, MS	Harbor extension and industrial fill	Authorized by Public Law 70-391. Modified by Public Laws 79-526 and 83-780.
437-721	Vicksburg-Lake View, MS	Main line levee, left bank	--

**TABLE 41-A**                      **MISSISSIPPI RIVER IMPROVEMENTS**  
**(Continued)**

Mileage Above Head of Passes	Locality	Improvement	Remarks
490	Wilson Point, LA	Pumping Plant and drainage structure, right bank	Unpublished Vicksburg District's MRC report approved Apr. 14, 1966. <sup>2</sup>
537	Greenville Harbor, MS	Harbor improvements and port area	Authorized by Public Law 85-500.
646	Long Lake, Helena, AR	Culvert and floodgate, right bank	Authorized by Public Law 79-526. <sup>2</sup>
605-666	Henrico-Helena, AR	Main line levee and floodwall, right bank	--
672-993	St. Francis River-Commerce, MO <sup>3</sup>	Main line levee, right bank	--
722-725	Industrial levee (Ensley Bottoms)	Levee and pumping station	--
721-734	Memphis Harbor, TN	Closure of Tennessee Chute, industrial fill, levee, harbor channels, etc.	Authorized by Public Law 79-526.
803-873	Tiptonville-Obion River	Main line levee, left bank, levee extension, and diversion Obion River	Modified by Acts of Jul. 24, 1946 and Dec. 23, 1971.
857	Near Mud Lake, TN	Pumping station and adjacent channel improvements	Authorized Dec. 15 and 17, 1970 under Sec. 201 of Oct. 27, 1965 FC Act.
890	St. Johns Bayou, MO	Drainage floodgate and levee closure	Modified by Jul. 24, 1946 Act.
890	New Madrid Floodway, MO	Drainage floodgate and levee closure	Modified by Sep. 3, 1954 Act.
890-954	New Madrid-Birds Point, MO	Floodway, right bank	--
902-922	Slough Bend, Hickman, KY	Main line levee, left bank	--
922	Hickman, KY	Floodwall, left bank	--
946	Peafield, MO	Drainage floodgate	Authorized by Sep. 3, 1954 Act.
957 <sup>1</sup>	Cairo, Cairo drainage	Floodwalls and levees district	--
957 <sup>1</sup>	Cairo, Cairo drainage district, Mounds, Mound City, and vicinity	Floodwalls, levees, and pumping plant	--
	Thebes-Rock Island, IL	Levees, both banks	Intermittent (Sec. 6).
	Cape Girardeau, MO, to Rock Island, IL	Levees	Intermittent (Sec. 6).

1. Cairo, IL, is on Ohio River about 3 miles above its mouth (Mississippi River mile 954 AHP).

2. Also see Table 41-D, "Authorizing Legislation."

3. Commerce, MO, is on Upper Mississippi River, 39 miles above mouth of Ohio River.

**TABLE 41-B**                      **MISSISSIPPI RIVER TRIBUTARY AND  
OUTLET IMPROVEMENTS**

Mileage Below Head of Atchafalaya River	Locality	Improvement	Remarks
	ATCHAFALAYA BASIN, LA <sup>1</sup> <i>Atchafalaya Basin, Morganza and West Atchafalaya Floodways</i>		
0-54	West Atchafalaya Floodway between Red River and Alabama Bayou	Floodway	--
27-54	Morganza Floodway between Mississippi River and Alabama Bayou	Floodway	--
54-117	Atchafalaya Basin Floodway between Alabama Bayou and Morgan City <i>East protection levee (Morganza and Atchafalaya Floodways)</i>	Floodway	--
20-27	Lacour-Red Cross	Levee, upper Morganza guide	--
25-117	Morganza-Morgan City	Levee and Morgan City floodwall	Including lower Morganza Floodway guide levee.
27	Bayou Latenache	Drainage structure, Pointe Coupee, and channel enlargement	Through upper Morganza guide levee and enlargement of outlet channel.
0-27	Upper Pointe Coupee Loop area	Additional drainage facilities	Enlargement of Bayou Latenache. Approved Jun. 4, 1970. See Table 41-D.
31-57	Bayou Fardoche-Ramah	Drainage channel	Levee landside borrow pit.
80	Bayou Sorrel <sup>1</sup>	Lock	Alternate route, Gulf Intracoastal Waterway, Port Allen to Morgan City.
53-117	Bayou Sorrel Lock-Morgan City	Alternate navigation channel. Gulf Intracoastal Waterway	Gulf Intracoastal Waterway utilizes levee west side borrow pit channel.
117	Morgan City	Lock in Bayou Boeuf <sup>1</sup>	Gulf Intracoastal Waterway.
117-129	Below Morgan City	Channel relocation	Bypass route for Gulf Intracoastal Waterway.
117-129	Below Morgan City <i>Atchafalaya Basin Floodway lower protection levee</i>	Levee, floodwall	East of lower river.
105	Calumet	Floodgate, east	Bayou Teche-Wax Lake Outlet.
105-120	Below Morgan City	Levees, floodwall, drainage structures, and pumping plants	Enclosed area between Wax Lake Lake Outlet and Berwick.
115	Berwick <sup>1</sup>	Lock	Lower Atchafalaya River.
116	Patterson	Water system	Adjustment to provide fresh water.
	<i>West protection levee (Atchafalaya Basin and West Atchafalaya Floodways)</i>		
5	Simmesport-Hamburg	Levee fuse plug	West Atchafalaya Floodway.

**TABLE 41-B  
(Continued)**
**MISSISSIPPI RIVER TRIBUTARY AND  
OUTLET IMPROVEMENTS**

Mileage Below Head of Atchafalaya River	Locality	Improvement	Remarks
5-105	Mansura to Wax Lake Outlet Coulee des Grues	Protection levee Levee enlargement and floodgate extension	-- --
29	West Atchafalaya Floodway	Railway	--
29	Morganza Floodway	Railway	--
40	Bayou Darbonne	Gated drainage structures	Through West Atchafalaya protection levee.
40	West Atchafalaya Floodway	Highway	--
40	Morganza Floodway	Highway	--
41	Bayou Courtableau	Gated drainage control structures and channels	--
41	West Atchafalaya Floodway	Railway	--
41	Morganza Floodway	Railway	--
94	Charenton	Floodgate and approach channels	Borrow pit channel to Grand Lake through West Atchafalaya protection levee.
94	Jaws-Lake Fausse Pointe	Outlet, Charenton drainage canal and protection levee	Restoration of drainage west of West Atchafalaya Basin protection levee.
105	Calumet	Floodgate, west	Bayou Teche and Wax Lake Outlet.
105	Wax Lake Outlet	Drainage canal-railway and highway bridges	To lower flood heights.
	<i>Atchafalaya River</i>		
0-54	Barbre Landing-Alabama Bayou	East bank, levee	--
5-6	Simmesport	Levee, ring, and drainage structure	--
5-66	Simmesport-Bayou Garofier	West bank, levee	--
28-30	Melville	Levee, ring	--
40-41	Krotz Springs	Levee, ring	--
54-117	Below Alabama Bayou	Channel enlargement	Increase channel capacities to decrease flood heights.
94-106	Mississippi River-Morgan City	12- by 125-foot navigation channel	Through Grand and Six Mile Lakes.
	TECHE-VERMILION BASINS, LA		
	Atchafalaya River to Teche- Vermilion Basins	Pumping station above Krotz Springs, conveyance channels, and appurtenant works	Freshwater distribution from Atchafalaya River to Teche- Vermilion Basins.

**TABLE 41-B**  
**(Continued)**

**MISSISSIPPI RIVER TRIBUTARY AND  
OUTLET IMPROVEMENTS**

Mileage Above Mouth	Locality	Improvement	Remarks
	<i>Courtableau Basin, LA, and outlets</i>		
0-8	Charenton Canal	Drainage channel	Outlet to gulf
50-133	West Atchafalaya protection levee borrow pit channel	Drainage channel	Intercepting drainage channel.
96	Bayou Courtableau spillway	Drainage control structure	--
133	Bayou des Glaises	Diversion channel	--
	<b>BAYOU COCODRIE AND TRIBUTARIES</b>		
	Bayou Courtableau	Enlargement and additional culverts	Washington to west protection levee.
0-17	Bayou Cocodrie	Enlargement and realignment	--
17-40	Bayous Cocodrie-Boeuf diversion	New channel	--
40-51	Bayou Boeuf	New channel	--
51-60	Bayous Boeuf-Rapides diversion	New channel	--
17-42	Upper Cocodrie	Enlargement, clearing, and snagging	--
	<i>Bayou Boeuf</i>		
87-107	Bayou Lamourie to Kincaid	Enlargement, realignment, clearing, and snagging	--
	<i>Structures</i>		
40	Lecompte Control Structure	Fixed elevation weir	--
60	Bayou Rapides Control Structure	Gated drainage structure	--
87	Bayou Lamourie Control Structure	Gated drainage structure	--
	Various	Railway, highway, and local road bridges, and pipeline crossing	--
	<b>LAKE PONTCHARTRAIN, LA</b>		
	Lake Pontchartrain, Jefferson Parish, LA	Flood protection	( <sup>2,3</sup> )
	<b>AMITE RIVER, LA</b>		
	Amite River, LA	Bank protection	Authorized by Public Law 81-516. Eliminated by Public Law 89-298.
	<b>LOWER RED RIVER, SOUTH BANK, RED RIVER LEVEES, LA</b>		
82-145	Moncla-Hotwells	Levee, south bank	--
	Bayou Rapides Pumping plant and gravity structure	Levee, south bank	Senate Doc. (Public Law 84-99) Added to project by Public Law 101-514.
	Red River-Moncla to Lake Long	Levees	Intermittent (Sec. 6).

TABLE 41-B  
(Continued)MISSISSIPPI RIVER TRIBUTARY AND  
OUTLET IMPROVEMENTS

Mileage Above Mouth	Locality	Improvement	Remarks
	EASTERN RAPIDES AND SOUTH-CENTRAL AVOYELLES PARISHES, LA Eastern Rapides and south- central Avoyelles Parishes, LA	Flood protection and drainage improvement	Authorized by Public Law 91-611.
	TENSAS BASIN, AR AND LA <i>Red River backwater area</i> Tensas-Cocodrie area	Levees, drainage channels, structures, and pumping plant	( <sup>4</sup> )
3-56	Larto Lake-Jonesville	Levees, drainage channels, and structures	( <sup>4</sup> )
	Sicily Island area	Levees, drainage channels, structures, and pumping plants	( <sup>4</sup> )
3-56	Below Red River area	Levees, drainage channels, structures, and pumping plants	( <sup>4</sup> )
5	<i>Black River, LA</i> Six Mile Bayou area	Drainage structure and appurtenant channel works	Unpublished VXD-MRC Letter Report dated May 31, 1977, MR&T authority. <sup>2</sup>
56	Jonesville, LA	Levees, floodwall, pumping plant, and interior drainage	Portion of levee built under Sec. 6. Incorporated in MR&T by Public Law 81-516. <sup>2</sup>
	Ouachita River	Levees, drainage channels, and structures	Monroe to Sandy Bayou and Bawcomville (Sec. 6).
	<i>Boeuf and Tensas Rivers and Bayou Macon, AR and LA</i> <i>Boeuf River, AR and LA</i>		
0-32	Below Bayou La Fourche	Clearing	( <sup>5</sup> )
0-56	Bayou La Fourche	Channel improvement and realignment	( <sup>5</sup> )
151-235	Boeuf River, AR and LA above Bayou La Fourche	Channel improvement	Authorized by Public Laws 78-534 and 79-526. <sup>2,3</sup>
210-286	Canal 19	Channel improvement	( <sup>5</sup> )
286-296	Canal 19 extension	Channel improvement	( <sup>6</sup> )
0-75	Big and Colewa Creeks	Channel improvement	Authorized by Public Law 78-534. <sup>3</sup>
	<i>Tributaries of Boeuf River-- Canal 19</i>		
0-8	Fleschmans Bayou	Channel improvement	( <sup>6</sup> )
0-7	Caney Bayou	Channel improvement	( <sup>6</sup> )
0-33	Big Bayou	Channel improvement	( <sup>5</sup> )
0-10	Canal 18	Channel improvement	( <sup>6</sup> )
0-9	Kirsch Lake Canal	Channel improvement	( <sup>6</sup> )
0-14	Black Pond Slough	Channel improvement	( <sup>6</sup> )
	<i>Bayou Macon, AR and LA</i>		
0-170	Bayou Macon	Channel improvement	See Table 41-E
0-34	Canal 43	Channel improvement	( <sup>5</sup> )
0-35	Canal 81	Channel improvement	( <sup>5</sup> )

**TABLE 41-B**  
**(Continued)**

**MISSISSIPPI RIVER TRIBUTARY AND  
OUTLET IMPROVEMENTS**

Mileage Above Mouth	Locality	Improvement	Remarks
Lake Chicot	Pumping plant and drainage structure	To divert flows from Lake Chicot	Authorized by Public Law 90-483.
	<i>Tributary of Bayou Macon</i>		
0-6	Rush Bayou	Clearing	( <sup>6</sup> )
	<i>Tensas River, AR and LA</i>		
0-165	Tensas River	Channel improvement	Authorized by Public Law 78-534. <sup>3</sup>
	<i>Tributary of Tensas River</i>		
0-22	Mill and Vidal Bayous	Channel improvement	Authorized by Public Law 89-298.
	<i>Grant's Canal, LA</i>		
0-0.2	Grant's Canal at Lake Providence	Filling canal	Authorized by Public Law 81-516.
	LOWER ARKANSAS RIVER, AR		
23-98	Yancopin-Pine Bluff	Levee, south bank	--
35-98	Fletcher Bend, AR, to Pine Bluff	Revetment	--
48-102	North Little Rock to Gillett (below Plum Bayou)	Levee, north bank	( <sup>5</sup> )
	GRAND PRAIRIE-BAYOU METO, AR		
	Grand Prairie Region and Bayou Meto Basin, AR	Aquifer protection. water supply and environmental improvements	Authorized by Public Law 81-516.
	YAZOO BASIN, MS		
0-75	Yazoo Backwater area	Levees and pumping plants	--
0-381	Yazoo River System below Arkabutla Lake	Channel improvement	Including Tallahatchie and Coldwater Rivers.
75-366	Yazoo River between Yazoo City and Prichard	Levees, right bank	Intermittent.
75-345	Yazoo River between Yazoo City and Askew	Levees, left bank	Intermittent.
45-109	Will M. Whittington Auxiliary Channel	Floodway channel	--
75	Yazoo City protection	Levee, drainage structure, and pumping plant	--
	Rocky Bayou area	Channel clearing and enlargement	Improvement of 7.8 miles was approved Apr. 29, 1970.
127	Belzoni protection	Levee and floodwall	--
185	Greenwood protection	Levees, channel improvement, drainage structures, and pumping plants	--
381	Arkabutla Lake	Flood detention and conservation	See Table 41-C.
0-64	Yalobusha River below Grenada Lake	Channel improvement	--
64	Grenada Lake	Flood detention and conservation	See Table 41-C.
0-24	Tallahatchie River-Little Tallahatchie River	Levees, Panola-Quitman Floodway	--
0-26	Little Tallahatchie River below Sardis Lake	Channel improvement	--



**TABLE 41-B**  
**(Continued)**

**MISSISSIPPI RIVER TRIBUTARY AND**  
**OUTLET IMPROVEMENTS**

Mileage Above Mouth	Locality	Improvement	Remarks
26	Sardis Lake	Flood detention and conservation	See Table 41-C.
0-13	Yocono River below Enid Lake	Channel improvement	--
13	Enid Lake	Flood detention and conservation	See Table 41-C.
0-88	Cassidy Bayou below Old Coldwater River	Channel improvement	Including Moore's Bayou, Cutoff Bayou, Whiting Lake and outlet.
137-260	Upper Yazoo Projects	Floodway channel	--
75-381	Area between main stem and hills including Bobo Bayou McKinney Bayou enlargement of pumping plant.	Levees and channel improvement	Authorized by Public Law 79-526.
		Channel improvement and	Authorized by Public Law 79-526.
0-8.3	Alligator-Catfish Bayous	Channel improvement	Authorized by Public Law 89-298.
			As modified in GDM in 1967.
0-23	Bear Creek	Channel improvement	Authorized by Public Law 89-298.
0-42	Whiteoak Bayou	Channel improvement	Authorized by Public Law 89-298.
275-290	Tallahatchie River, MS	Two road crossings of Panola-Quitman Floodway, MS, and for protection of Sheley Bridge	Authorized by Public Law 90-147.
	<i>Big Sunflower River, etc.</i>		
0-204	Big Sunflower River	Channel improvement	Authorized by Public Law 78-534. <sup>3</sup>
0-8	Hull Brake-Mill Creek Canal	Channel improvement	--
0-28	Hushpuckena River	Channel improvement	--
0-81	Quiver River	Channel improvement	--
	Gin and Muddy Bayous, MS	Channel improvement	Authorized by Public Law 87-874.
0-43	Bogue Phalia	Channel improvement	Authorized by Public Law 78-534. <sup>3</sup>
0-4	Ditchlow Bayou	Channel improvement	Authorized by Public Law 78-534. <sup>3</sup>
0-27	Little Sunflower River	Channel improvement	Authorized by Public Law 78-534. <sup>3</sup>
153-160	Deer Creek	Channel improvement	Authorized by Public Law 78-534. <sup>3</sup>
0-68	Steele Bayou	Channel improvement	Authorized by Public Law 78-534. <sup>3</sup>
			Modified in December 1970.
			See Table 41-D.
			Approved Mar. 3, 1970. See Table 41-D.
	LOWER WHITE RIVER AND BASIN, AR		
13-55	Laconia Circle-Old Town Lake	Levee, backwater including outlet	Mile 605-645 Mississippi River.
		Pumping plant	( <sup>6</sup> )
0-68	Big Creek and tributaries structures	Channel improvement and	Authorized by Public Law 89-298.

**TABLE 41-B**  
**(Continued)**

**MISSISSIPPI RIVER TRIBUTARY AND  
OUTLET IMPROVEMENTS**

Mileage Above Mouth	Locality	Improvement	Remarks
99	Clarendon levee	Levee and outlet structures	Authorized by Public Law 89-298.
108-192	Augusta to Clarendon	Levees, outlet structures	( <sup>5</sup> )
122	De Valls Bluff	Levee, outlet structure, and pumping station	( <sup>5</sup> )
143	Des Arc, AR	Levee, outlet structure, and pumping station	Authorized by Public Law 81-516.
0-196	CACHE BASIN, AR Cache River, AR	Channel improvement and structures	Authorized by Public Law 81-516.
0-90	Bayou DeView, AR	Channel improvement and structures	Authorized by Public Law 81-516.
	ST. FRANCIS RIVER AND BASIN, AR AND MO		
260	Inter-River Drainage District in Missouri	Channel improvement and two outlet structures	Authorized Dec. 16, 1975. See Table 41-D.
0-225	Mouth of St. Francis River-Wappapello Dam	Floodway, levees, drainage channels, and structures	--
225	Wappapello Lake	Flood detention and conservation	See Table 41-C.
0-105	Little River Basin	Floodway, levees, drainage channels, and structures	--
86	Marked Tree, AR	Marked Tree Siphon	--
0-36	Tyronza River	Channel improvement	--
0-29	Big Slough Ditch	Channel improvement	--
0-17	Mayo Ditch	Channel improvement	--
0-12	Cross County Ditch	Channel improvement	--
	Belle Fountain Ditch	Channel improvement	Authorized by Public Law 90-483.
	Drainage District No. 17	Channel improvement and pumping station	Authorized by Public Law 90-483.
0-108	L'ANGUILLE RIVER, AR L'Anguille River and tributaries, Brushy and First Creeks	Channel improvement	Authorized by Public Law 80-858.
	WEST TENNESSEE TRIBUTARIES		
0-25	Wolf River and tributaries, TN	Channel improvement	( <sup>6</sup> )
	Obion River and tributaries, North, South, Middle, and Rutherford Forks	Channel improvement	Authorized by 1948 Flood Control Act.
	Forked Deer River and tributaries, North, Middle, and South Forks	Channel improvement	Authorized by 1948 Flood Control Act.
	Mud Lake Pumping Station, TN	Pumping plant	Authorized by Resolutions Dec. 15 and 17, 1970. <sup>2</sup>

**TABLE 41-B**  
**(Continued)**

**MISSISSIPPI RIVER TRIBUTARY AND**  
**OUTLET IMPROVEMENTS**

Mileage Above Mouth	Locality	Improvement	Remarks
	Harris Fork Creek, TN and KY	Flood control improvements	Authorized by Water Resources Act of Oct. 22, 1976. <sup>2</sup> Section 102, 1976. <sup>2</sup>
	Porter Gap, TN	Construction to main-stem standards, levee and appurtenant structures for flood control	Section 183, 1976. <sup>2</sup>
0-20	REELFOOT LAKE-LAKE NO. 9, TN AND KY Running Reelfoot Bayou, TN	Channel improvement	Authorized by Public Law 83-780.
0-15	Bayou du Chien and Lake No. 9, KY and TN	Channel improvements and pumping station	Authorized in December 1970. See Table 41-D.
0-47	WEST KENTUCKY TRIBUTARIES, KY Obion Creek, KY	Channel improvement	Authorized by Public Law 89-298.
	LITTLE RIVER DIVERSION CHANNEL, MO Delta to Ansell, MO	Levees	Mile 49 above Cairo.
0-28	MISSOURI RIVER, MO Mouth to St. Charles, MO	Levees	Intermittent (Sec. 6).
0-120	ILLINOIS RIVER, IL Mouth to Havana, IL	Levees	Intermittent (Sec. 6).
	OHIO RIVER, IL AND KY Cairo to Mound City and Mounds, IL	Floodwall, levee, revetment, and pumping plant	

1. General data concerning Bayou Boeuf, Bayou Sorrel, and Berwick locks where Atchafalaya Basin protection levees cross Gulf Intracoastal Waterway, alternate route to Plaquemine, LA, and lower Atchafalaya River (extension of Bayou Tech Waterway), respectively, are in report of New Orleans District.
2. Also see Table 41-D, "Authorizing Legislation."
3. Public Law 81-516 modified requirements of local cooperation.
4. Authorized by Public Law 77-228. Modified by Public Law 89-298.
5. Authorized or incorporated in MR&T by Public Law 79-526.<sup>3</sup> See Table 41-D.
6. Authorized by Public Law 85-500.

**TABLE 41-C**

**MISSISSIPPI RIVER TRIBUTARY  
DAMS AND LAKES**

Name <sup>1</sup>	Grenada Lake	Enid Lake	Sardis Lake	Arkabutla Lake	Wappapello Lake
River	Yalobusha	Yocona	Little Tallahatchie	Coldwater	St. Francis
Nearest town to damsite	Grenada	Enid	Sardis	Arkabutla	Wappapello
Drainage area, square miles	1,320	560	1,545	1,000	1,310
Conservation pool:					
Area, thousand acres	10	6	11	5	4
Volume, thousand acre-feet	86	58	108	31	31
Elevation, feet, NGVD	193.0	230.0	236.0	209.3	354.7
Flood control pool:					
Area, thousand acres	65	28	58.5	33	23
Volume, thousand acre-feet	1.252	602	1,462	494	582
Runoff, inches	17.8	20.2	17.7	9.3	8.4
Outlet gates:					
Number	3	2	4	3	3
Size, feet	7.5 by 14	8 by 16	6 by 12	8.5 by 19	10 by 20
Capacity, thousand cubic feet per second	10.7	9.4	10.0	10.0	18.0
Spillway:					
Type, uncontrolled	Chute	Chute	Chute	Chute	Gravity
Length, feet	200	200	400	300	740
Elevation, crest, feet, NGVD	231.0	268.0	281.4	238.3	394.7
Discharge capacity, thousand cubic feet per second	52	50	132	89	229
Surcharge pool:					
Area, thousand acres	106	41	90	63	32
Volume, thousand acre-feet	1,385	554	1,447	858	521
Runoff, inches	19.7	18.5	17.6	16.1	7.5
Elevation, feet, NGVD	247.5	284.0	301.0	256.3	413.7
Dam:					
Type, earthfill	Rolled	Rolled	Hydraulic	Rolled	Rolled
Length, thousand feet	13.9	8.4	15.3	11.5	2.7
Elevation, crest, feet, NGVD	256.0	293.0	311.4	264.3	419.7

1. Grenada, Enid, Sardis, and Arkabutla Lakes are in Yazoo River Basin, MS; Wappapello Lake is in St. Francis River Basin, MO.

**TABLE 41-D AUTHORIZING LEGISLATION**

Act or Authorization	Work Authorized	Document
May 15, 1928	Flood protection in alluvial valley of Mississippi River, revetment and contraction works and dredging to provide least channel depth of 9 feet and width of 300 feet below Cairo.	H. Doc. 90, 70th Cong., 1st sess.
Jun. 19, 1930	Provided for allotment of the balance of emergency rescue funds to reimburse levee districts and others for expenditures in flood-control works during the 1927 and subsequent floods.	Public Law 395, 71st Cong., 2d sess.
Feb. 15, 1933	Provided for ownership of lands in Bonnet Carre Spillway and Floodway with proviso for granting rights-of-way, easements, and permits, in said lands.	Public Law 351, 72d Cong.
Apr. 23, 1934	Authorized payment for purchase of, or to reimburse states and local levee districts for the cost of, levee rights-of-way for flood-control work in the Mississippi Valley, and for other purposes.	Public Law 171, 73d Cong.
Aug. 30, 1935	Improvement of Wolf and Nonconnah Rivers, TN (Nonconnah Creek is correct title). Improvement of Wolf River (Memphis Harbor), TN.	R&H Comm. Doc. 26, 72d Cong., 1st sess. R&H Comm. Doc. 45, 74th Cong., 1st sess.
Jun. 15, 1936	Modification of the 1928 Act to provide for: Construction of a backwater levee at mouth of White River, AR.  Construction of Eudora floodway in lieu of Boeuf floodway; flood control, Yazoo River: construction of Morganza floodway; and an outlet to the Gulf of Mexico west of Berwick, LA, including a 6-year program for the improvement and regularization of the Mississippi River between Arkansas and Red Rivers, and Atchafalaya River; and construction of roads on levees and drainage adjustments incident to floodway levees.	Unpublished report dated Apr. 2, 1925. H. Comm. on Flood Control, Doc. 1, 74th Cong., 1st sess.
Aug. 28, 1937	Provided for construction of floodwalls, levees, and revetments along Wolf River and Nonconnah Creek for protection of Memphis, TN. Modify the Yazoo River project to substitute a combined reservoir floodway and levee plan.	Unpublished report on record in OCE.
Jun. 28, 1938	Construction of Mounds to Mound City levee and control works along Cache River, IL.  Modification of previous act pertaining to floodways and outlets and lands therein; including program for the improvement and regularization of the Mississippi River, between Cairo and Arkansas River, extension of levee road system; strengthening of levees.	H. Comm. on Flood Control, Doc. 1, 75th Cong., 1st sess. H. Comm. on Flood Control, Doc. 1, 75th Cong., 1st sess.
Aug. 18, 1941	Enlarge main line levees to offset abandonment of floodways between Arkansas and Red Rivers, flood-control works in backwater areas of Yazoo and Red Rivers, and in Bayous Rapides, Beouf, and Cocodrie, LA.	H. Doc. 359, 77th Cong., 1st sess.

**TABLE 41-D**  
**AUTHORIZING LEGISLATION**  
**(Continued)**

Act or Authorization	Work Authorized	Document
Dec. 22, 1944	Navigation channel 12 feet deep and 300 feet wide between Baton Rouge and Cairo; flood protection of Yazoo River Backwater Area in vicinity of Satartia, MS. Continue prosecution of channel improvement and stabilization program, \$200 million.	H. Doc. 509, 78th Cong., 2d sess.  Public Law 534, 78th Cong., 2d sess.
Jul. 24, 1946	Flood control on the Big Sunflower, Little Sunflower, Hushpuckena, and Quiver Rivers and their tributaries, and on Hull Brake-Mill Creek Canal, Bogue Phalia, Ditchlow Bayou, Deer Creek, and Steele Bayou, MS. <sup>1</sup> Improve Boeuf and Tensas Rivers and Bayou Macon, AR. <sup>1</sup>  Improve Bayou Lafourche, LA.  Improve Yazoo River tributaries.  North bank, Arkansas River levees(below Plum Bayou). <sup>1</sup>  Levees on White River (Augusta to Clarendon). <sup>1</sup>  Bayou des Glaisses diversion channel, LA. <sup>1</sup>  Modify local cooperation requirements in St. Francis and Yazoo Basins. Tiptonville-Obion levee and drainage improvements. <sup>1</sup>  Improvement of St. Johns Bayou, MO.  Big Sunflower River, etc. <sup>1</sup>  Tennessee Chute (Memphis Harbor), TN.  Continue prosecution of project for flood control and channel improvement, \$100 million.	H. Doc. 516, 78th Cong., 2d sess.   S. Doc. 151, 78th Cong., 2d sess. S. Doc. 191, 79th Cong., 2d sess. H. Doc. 516, 78th Cong., 2d sess. H. Doc. 308, 74th Cong., 1st sess. H. Doc. 98, 76th Cong., 1st sess. H. Doc. 602, 79th Cong., 2d sess. Public Law 526, 79th Cong., 2d sess. H. Doc. 757, 79th Cong., 2d sess. H. Doc. 138, 80th Cong., 1st sess. H. Doc. 516, 78th Cong., 2d sess. S. Doc. 51, 80th Cong., 1st sess. Public Law 526, 79th Cong., 2d sess.
Jun. 30, 1948	Improve Mississippi River below Cape Girardeau, MO, with respect to West Tennessee tributaries.  Improve L'Anguille River, AR.  Baton Rouge Harbor (Devils Swamp), LA. <sup>1</sup>	H. Doc. 627, 80th Cong., 2d sess.  H. Doc. 651, 80th Cong., 2d sess. H. Doc. 321, 80th Cong., 1st sess.
May 17, 1950	Flood protection at Des Arc, AR.  Improve St. Francis River and Basin, AR and MO.  Improve Cache River and Bayou DeView, AR and MO.  Improve Grand Prairie Region and Bayou Meto Basin, AR.	H. Doc. 485, 81st Cong., 2d sess. H. Doc., 132, 81st Cong., 1st sess. S. Doc. 88, 81st Cong., 1st sess. H. Doc. 255, 81st Cong., 1st sess.

**TABLE 41-D**  
**(Continued)**

**AUTHORIZING LEGISLATION**

Act or Authorization	Work Authorized	Document
	Flood protection, Lake Pontchartrain, Jefferson Parish, LA. <sup>1</sup>	S. Doc. 139, 81st Cong., 2d sess.
	Filling Grant's Canal, Lake Providence, LA.	Public Law 516, 81st Cong., 2d sess.
	Additional protection to Red River Backwater Area.	Public Law 516, 81st Cong., 2d sess.
	Extend Federal jurisdiction to cover levees in Orleans Parish, LA.	Public Law 516, 81st Cong., 2d sess.
	Bank protection, Amite River, LA.	Public Law 516, 81st Cong., 2d sess.
	Continue prosecution of project for flood control and channel improvement, \$200 million.	Public Law 516, 81st Cong., 2d sess.
	Jonesville, LA, levee, retaining wall, and drainage structure. <sup>1</sup>	S. Doc. 117, 81st Cong., 1st sess.
Oct. 30, 1951	Modify requirements for local cooperation in White River Backwater Area, AR.	Public Law 237, 82d Cong., 1st sess.
Sep. 3, 1954	Navigation improvement of Atchafalaya from Mississippi River to Morgan City, LA.	S. Doc. 53, 82d Cong., 1st sess.
	Modify project for Vicksburg-Yazoo Area (Harbor), MS.	H. Doc. 85, 83d Cong., 1st sess.
	Improve New Madrid Floodway, MO, including Peafield drainage floodgate.	H. Doc. 183, 83d Cong., 1st sess.
	Control of Old and Atchafalaya Rivers and a lock for navigation.	H. Doc. 478, 83d Cong., 2d sess.
	Improve Reelfoot Lake area, KY and TN.	S. Doc. 160, 83d Cong., 2d sess.
Jul. 3, 1958	Improve Greenville Harbor, MS.	S. Doc. 15, 86th Cong., 1st sess.
	Extensions to project for Boeuf and Tensas Rivers and Bayou Macon in Arkansas.	H. Doc. 108, 85th Cong., 1st sess.
	White River backwater area pumping plant.	S. Doc. 26, 85th Cong., 1st sess.
	Wolf River and tributaries for flood protection in Tennessee.	H. Doc. 76, 85th Cong., 1st sess.
Jul. 14, 1960	Continue prosecution of project for channel improvement--\$50 million.	Public Law 86-645.
Oct. 23, 1962	Modification--Baton Rouge Harbor (Devils Swamp), LA.	Public Law 87-874.
	Construct improvements in Gin and Muddy Bayous, Yazoo River Basin, MS.	Public Law 87-874
	Replace 2 bridges with adequate floodway over Boeuf River and Big Bayou in Boeuf Basin, AR.	Public Law 87-874.
Jun. 18, 1965	Continue prosecution of project for flood control and channel improvement, \$53 million.	Public Law 89-42.

**TABLE 41-D**  
**AUTHORIZING LEGISLATION**  
**(Continued)**

Act or Authorization	Work Authorized	Document
Oct. 27, 1965	<p>Modify and expand levees and channel improvement features of main stem project.</p> <p>Modify flood control improvements in following tributary areas and basins: Cairo-Mounds-Mounds City, St. Francis, Lower White, Boeuf-Tensas-Macon, Red River backwater, Yazoo headwater, Grand Prairie, and Bayou Meto.</p> <p>Acquire any modified easements required in New Madrid Floodway as provided by Sec. 4 of May 15, 1928 act.</p> <p>Operate and maintain pumping plant in Red River backwater area (Tensas-Cocodrie Pumping Plant).</p> <p>Provide improvements in West Kentucky tributaries.</p> <p>Provide fish and wildlife facilities in St. Francis and Big Sunflower Basins; Yazoo Headwater and Backwater Areas; and Mississippi Delta region.</p> <p>Deauthorize Amite River, LA, project.</p> <p>Modify St. Francis River, MO and AR, project within District No. 7, Poinsett County, AR.</p>	<p>H. Doc. 308, 88th Cong., 2d sess.</p> <p>H. Doc. 308, 88th Cong., 2d sess.</p> <p>H. Doc. 308, 88th Cong., 2d sess.</p> <p>H. Doc. 308, 88th Cong., 2d sess.</p> <p>H. Doc., 308, 88th Cong., 2d sess.</p> <p>H. Doc. 308, 88th Cong., 2d sess.</p> <p>H. Doc. 308, 88th Cong., 2d sess.</p> <p>S. Doc. 57, 89th Cong., 1st sess.</p>
Apr. 14, 1966 <sup>2</sup>	Provide pumping plant and drainage structure at Wilson Point, LA.	Unpublished Vicksburg District's MRC report. Approved Apr. 14, 1966.
Nov. 7, 1966	<p>Construction of improvements to supplement freshwater supply in Teche-Vermilion Basins in Louisiana.</p> <p>Bank revetment for protection of existing industrial facilities along Mississippi River below Baton Rouge, LA.</p> <p>Modification of West Tennessee tributaries feature to provide relocation of gas transmission lines at Federal expense.</p>	<p>H. Doc. 524, 89th Cong., 2d sess.</p> <p>Public Law 89-789.</p> <p>Public Law 89-789.</p>
Nov. 20, 1967	Continue emergency work, \$87,135,000, which includes \$100,000 for road crossing of Panola-Quitman Floodway, MS, and \$80,000 for protection of Sheley Bridge, Tallahatchie River, MS.	Public Law 90-147.
Aug. 13, 1968	<p>Improvements in Boeuf and Tensas Rivers and Bayou Macon Basin to divert flows that would otherwise enter Lake Chicot, AR.</p> <p>Improvements in the Belle Fountain ditch and tributaries, MO, and Drainage District No. 17, AR.</p> <p>Provide pumping plants and other drainage facilities in Cairo, IL, and vicinity.</p>	<p>H. Doc. 168, 90th Cong., 1st sess.</p> <p>H. Doc. 339, 90th Cong., 2d sess.</p> <p>Public Law 90-483.</p>
Sep. 10, 1968 <sup>3</sup>	Modification of Yazoo Headwater Project to include cleanout along David Bayou, MS.	Unpublished MRC report dated May 8, 1968.
Mar. 3, 1970 <sup>3</sup>	Modify Yazoo Backwater feature to include a control structure in Muddy Bayou, MS.	Unpublished MRC report dated Feb. 2, 1970.



**TABLE 41-D**  
**AUTHORIZING LEGISLATION**  
**(Continued)**

Act or Authorization	Work Authorized	Document
Apr. 29, 1970 <sup>3</sup>	Modification of Yazoo Headwater Project to include drainage structure and channel improvement on Rocky Bayou, MS.	Unpublished MRC report dated Mar. 6, 1970.
Jun. 4, 1970 <sup>3</sup>	Provide for enlargement of Bayou Latenache from Pointe Coupee drainage structure to Alabama Bayou, LA.	Unpublished MRC report dated Sep. 22, 1969.
Dec. 31, 1970	Modify and expand project to include flood protection within the area of eastern Rapides and south-central Avoyelles Parishes, LA, that are drained by Bayou des Glaisses diversion channel and Lake Long, and their tributaries. Modify the project for West Kentucky tributaries (Obion Creek), KY, to provide for all relocations, at Federal expense, of all transmission lines required by the project.	S. Doc. 91-113, 2d sess.  Public Law 91-611.
Senate and House Public Works Resolutions adopted Dec. 17 and 15, 1970, respectively. <sup>4</sup>	Report on Western Tennessee Tributaries, TN and KY, authorized: a. Modification of Reelfoot Lake feature to provide channel improvements on Bayou du Chien and Lake No. 9 in KY and TN. b. Modification of Mississippi levee feature to include a pumping station near Mud Lake floodgate and adjacent channel improvements. Modification of Big Sunflower Basin feature to provide additional improvements in Steele Bayou Basin, MS.	H. Doc. 91-414, 2d sess.  S. Doc. 91-74, 2d sess.
River Basin Monetary Act of Dec. 23, 1971	Continue prosecution of project for the comprehensive development of the basin, \$97 million.  Modification of Tiptonville-Obion River levee feature to relieve local interests of all responsibility except that of providing maintenance.	Sec. 1, Public Law 92-222.  Sec. 7, Public Law 92-222.
Jan. 19, 1973 <sup>2</sup>	Modification of the Mississippi levee feature to provide additional drainage facilities in Long Lake area, vicinity of Helena, AR.	Unpublished Memphis District's MRC report dated Oct. 4, 1972.
TITLE I Water Resources Development Act of 1974.	Projects recommended by four completed reports were authorized for accomplishment of Phase I design memorandum of advance engineering and design on: a. Greenville Harbor, Greenville, MS. b. East bank of Mississippi River, Warren to Wilkinson Counties, MS (Natchez area). c. East bank of Mississippi River, Warren to Wilkinson Counties, MS (Vicksburg-Yazoo area). d. Bushley Bayou Area of Red River Backwater Area, LA. Modification of West Tennessee tributaries feature (Obion and Forked Deer Rivers), TN, to acquire lands for fish and wildlife, recreation, and environmental purposes.	Sec. 1, Public Law 93-251, Mar. 7, 1974.  S. Doc. 93-38, 1st sess. H. Doc. 93-148, 1st sess.  H. Doc. 93-148, 1st sess.  H. Doc. 93-157, 1st sess. Sec. 3, Public Law 93-251.

**TABLE 41-D**  
**AUTHORIZING LEGISLATION**  
**(Continued)**

Act or Authorization	Work Authorized	Document
	Modification of the Yazoo Basin, MS, feature to provide for a streambank erosion control demonstration project for the delta and hill areas of basin.	Sec. 32, Public Law 93-251.
	Modification of project to provide that the Secretary of the Army, acting through the Chief of Engineers, can substitute authorized mitigation lands, not yet acquired and no longer suitable, for like acreage in the same or adjacent subbasins of the project area. This section provides the authority to substitute authorized mitigation lands in: a. Tensas Basin, LA and AR, feature (Red River backwater). b. St. Francis Basin, AR and MO, feature.	Sec. 42, Public Law 93-251.
	Modification of Bayou Cocodrie and tributaries, LA, feature, to provide for: enlargement of Bayou Courtableau from Washington to west protection levee; right-of-way and spoil disposal areas at Federal expense; and necessary additional culverts through west protection levee.	Sec. 87, Public Law 93-251.
	Modification of Cache River Basin, AR, feature to provide for: acquisition by fee easements of lands for fish and wildlife management, recreation, and environmental purposes.	Sec. 99, Public Law 93-251.
TITLE II River Basin Monetary Authorization Act of 1974	Continue prosecution of project for the comprehensive development of the basin, \$211 million.	Sec. 201, Public Law 93-251. Mar. 7, 1974.
River Basin Monetary Act of Oct. 2, 1975	Continue prosecution of project for the comprehensive development of the basin, \$158,000,000.	Sec. 1, Public Law 94-101.
Dec. 16, 1975 <sup>2</sup>	Modification of St. Francis Basin, AR and MO, feature to provide relief from ponding of interior runoff in the Inter-River Drainage District of Missouri.	Unpublished Memphis District's MRC report dated Nov. 11, 1975.
TITLE II Public Works for Water and Power Development and Energy Research Appropriation Act, 1976.	Continue prosecution of project for comprehensive development during period Jul. 1-Sep. 30, 1976, \$60,300,000.	Public Law 94-180, Dec. 26, 1975.

**TABLE 41-D**  
**AUTHORIZING LEGISLATION**  
**(Continued)**

Act or Authorization	Work Authorized	Document
TITLE II Public Works for Water and Power Development and Energy Research Appropriation Act, 1977.	Continue prosecution of project for flood control, rescue work, repair, restoration, and control of bank erosion, \$231,497,000.	Public Law 94-355, Jul. 12, 1976.
Water Resources Development Act of 1976.	Sec. 101(a) authorized accomplishment of Phase I - Advanced Engineering and Design Memoranda-On: a. St. Johns Bayou and New Madrid Floodway, MO, project: Report of OCE - Sep. 26, 1975. b. Nonconnah Creek, TN and MS, project: Report of OCE - Jun. 23, 1976, and as an independent part of the project: Improvements for flood control and allied purposes on Horn Lake Creek and tributaries, including Cowpen Creek, TN and MS. Modification of West Tennessee Tributaries feature (Obion and Forked Deer Rivers), TN, to: a. (Sec. 102) - Provide project for flood control for Harris Fork Creek, TN and KY: (H.D. 94-221) except that highway bridge relocations and alterations shall be at Federal expense. b. (Sec. 183) - Provide for construction of a levee and appurtenant works from mouth of Obion diversion channel to vicinity Highway 88 and thence to vicinity of Porter Gap, TN.	Public Law 94-587, Oct. 22, 1976.
TITLE II Public Works for Water and Power Development and Energy Research Appropriation Act, 1978.	Continue prosecution of project for flood control, rescue work, repair, restoration, and control of bank erosion, \$253,081,000.	Public Law 95-96 Aug. 7, 1977.
Dec. 9, 1977, 5th Ind. on VXD May 31, 1977, Letter Report. <sup>2</sup>	Modification of the Tensas Basin Project, Red River Backwater Area, to include a drainage structure and appurtenant channel works in the Six Mile Bayou area of Concordia Parish, LA.	Unpublished Vicksburg District report dated May 31, 1977, on Cynthia and Six Mile Bayous, LA.
Jun. 28, 1980	The establishment of the Tensas River National Wildlife Refuge for the preservation and development of environmental resources and in lieu of mitigation acquisitions which otherwise would be required for certain water resources projects, within designated limits, in the basins of the Tensas, Boeuf, and Red Rivers in the State of Louisiana.	Public Law 96-285, Jun. 28, 1980.

**TABLE 41-D**  
**(Continued)**

**AUTHORIZING LEGISLATION**

Act or Authorization	Work Authorized	Document
Energy and Water Development Appropriation Act, 1981	For expenses necessary for prosecuting work of flood control projects, rescue work, repair, restoration or maintenance of flood control projects threatened or destroyed by flood, \$232,519,000: Provided, That not less than \$250,000 be available for control of bank erosion of streams in the Yazoo Basin, including the foothill area. Provided further, That funds for the Tensas Basin Red River Backwater Area, be used for flood control, etc., for Sicily Island and Below Red River including pumping stations.	Public Law 96-367, Oct. 1, 1980.
Supplemental Appropriations Bill for FY Ending Sep. 30, 1985 (PL 99-88), and the Water Resources Development Act of 1986 (PL 99-662)	Authorizes and directs the Secretary of the Army acting through the Chief of Engineers to proceed with planning, design, engineering, and construction of 41 water resources projects, including Atchafalaya Basin Floodway System. For the Atchafalaya Basin Floodway Systems project, cost-sharing is only required for the recreation feature of the project. The flood control and environmental features are Federal costs.	FY 1985 Supplemental Appropriations Bill (PL 99-88), and Water Resources Development Act of 1986 (PL 99-662).
Water Resources Development Act, 1986	<p>Sec. 104(a), Authorization of Projects - Authorization of Construction:</p> <p>Incorporation of the project for flood control, Louisiana State Penitentiary levee, Mississippi River, LA: Report of the Chief of Engineers, dated Dec. 10, 1982, at a total cost of \$23,400,000, with an estimated first Federal cost of \$17,600,000 and an estimated first non-Federal cost of \$5,800,000. No acquisition of land for or actual construction of the project may commence until appropriate non-Federal interests shall agree to undertake measures to minimize the loss of fish and wildlife habitat lands in the project area. The work is unscheduled.</p> <ol style="list-style-type: none"> <li>a. Bushley Bayou, LA. Water Resources Development Act of 1986 authorized the project for flood control, Bushley Bayou, LA.</li> <li>b. Eight Mile Creek, Paragould, AR. Project entails channel improvement along the creek with miniparks and hiking/ biking trails.</li> <li>c. Helena and Vicinity, AR. The Helena Basin is an urban basin containing approximately 3,500 acres which frequently and severely floods the city of Helena. A pumping station and sump with channel enlargement and a gated culvert was recommended.</li> <li>d. West Memphis and Vicinity, AR. Channel improvements along Ten Mile Bayou and Fifteen Mile Bayou for a total of 23.86 miles, with limited revegetation of right-of-way to maintain environmental stability.</li> <li>e. St. Johns Bayou and New Madrid Floodway, MO. Flood control for urban and rural land.</li> </ol>	Public Law 99-662, Nov. 17, 1986.

TABLE 41-D  
(Continued)

## AUTHORIZING LEGISLATION

Act or Authorization	Work Authorized	Document
Energy and water Development Appropriation Act, 1994	f. Nonconnah Creek and Johns Creek, TN and MS. Channel enlargement, recreation features with channel construction and environmental enhancement.	
	g. Horn Lake Creek and Tributaries, TN and MS. This is an urban flood control project located in extreme northwest Mississippi and southwest Tennessee. The plan of improvement consists of 3.5 miles of selective drift removal on lower Horn Lake Creek and 2.6 miles of vegetative clearing on Horn Lake Creek, 2.1 miles on Rocky Creek and 0.6 miles of vegetative clearing and 1.8 miles of channel enlargement on Cow Pen Creek. Hike/bike trails are included along Rocky Creek and Cow Pen Creek.	
	h. Atchafalaya Basin Floodway System, La. Not mentioned, but this Act authorized basic cost sharing principles for the project. In particular establishes that the fish and wildlife enhancement feature of the project is of national significance, and therefore, a 100 percent Federal cost.	
	i. Lower Atchafalaya Basin Reevaluation Study. Authority to, within available funds, investigate conditions at Wax Lake Outlet, Bayou Black, and other features, and recommend any modification desirable for flood protection navigation, and environmental program.	
	Sec. 601(a) Authorization of Projects. Authorization of Construction:	
	a. Yazoo Backwater Area, MS. Authorized the project for mitigation of fish and wildlife losses at the Yazoo Backwater Project, MS. The project shall include acquisition of 40,000 acres for mitigation of project-induced fish and wildlife losses.	
	b. Greenville Harbor, MS. Authorized the project for navigation, Greenville Harbor, MS, as contained in the reports of Chief of Engineers, Nov. 15, 1977 and Feb. 2, 1982, at a total cost of \$43,700,000 with an estimated first Federal cost of \$28,000,000 and an estimated non-Federal first cost of \$15,700,000.	
	c. Vicksburg Harbor, MS. Authorized the project for navigation, Vicksburg Harbor, as contained in the report of the Chief of Engineers, Aug. 13, 1979, at a total estimated first Federal cost of \$55,900,000 and an estimated non-Federal first cost of \$23,300,000.	
	d. Helena Harbor, Phillips County, AR. The recommended plan consists of dredging a navigation channel to provide access to 685 acres of landfill; construction of an overlook park; implementing landscaping and erosion control measures; and mitigation fish and wildlife losses. The project is scheduled to be constructed in two phases.	

**TABLE 41-D**  
**(Continued)**

**AUTHORIZING LEGISLATION**

Act or Authorization	Work Authorized	Document
	<p>e. White River Navigation to Batesville, AR. The plan of improvement recommended in the Feasibility Report provides for construction and maintenance to provide a 200-foot wide, 9-foot deep channel available 95 percent of the time from mile 10 (Arkansas Post Canal) to mile 254, two scenic overlooks, a primitive camping area, and acquisition of about 1,865 acres of woodlands for mitigation. However, section 52 of the Water Resources Development Act of 1988 deauthorized this project.</p> <p>f. Obion Creek, KY. To prevent headwater flooding along tributary streams and backwater flooding of alluvial lands.</p> <p>g. Memphis Harbor, Memphis, TN. This is a navigation project in the vicinity of Memphis, TN, which would consist of dredging and maintaining a 4.9 mile long, 500-foot minimum width, 9-foot deep general navigation channel with additional dredging as required and strategic placement of dredged material to create and provide navigation access to 1,000 acres to be developed as a waterfront industrial complex.</p> <p>Sec. 806. Reelfoot Lake, KY. This project is modified to provide that the Federal share of the cost of operating the pumping plant feature of such project shall be 50 percent.</p> <p>Sec. 836. Mud Lake, Western Tennessee Tributaries. This project is modified to provide that the requirements of local cooperation shall be (1) 50 percent of the value of the lands, easements, and rights-of-way, (2) to hold and save the United States free from damages due to the construction works, and (3) to maintain and operate all the works after completion.</p>	
Jun. 4, 1987	Modification of Mississippi Delta Region project to construct salinity control structure at Davis Pond (mile 118) rather than at Myrtle Grove (mile 59).	Unpublished New Orleans District report, Nov. 1, 1984.
Water Resources Development Act, 1988	<p>Sec. 3(a), Project Authorizations - Authorization of Construction:</p> <p>a. Mississippi-Louisiana Estuarine Area, MS and LA. Authorized the project for environmental enhancement, as contained in the report of Chief of Engineers, dated May 19, 1986, at a total cost of \$59,300,000.</p>	Public Law 100-676 Nov. 17, 1988
Water Resources Development Act, 1988	<p>Section 4(b)</p> <p>West Memphis and Vicinity, AR. Modified the project by allowing that non-Federal cooperation may be provided by levee districts, drainage districts, or any unit of a state, county, or local government.</p>	Public Law 100-676, Nov. 17, 1988

**TABLE 41-D**  
**(Continued)**

**AUTHORIZING LEGISLATION**

Act or Authorization	Work Authorized	Document
Energy and Water Development Appropriation Bill, 1990	West Memphis and Vicinity, AR. Directed the Corps to develop the most cost-effective flood control plan for the City of West Memphis without regard to frequency of flooding, drainage area, and the amount of runoff.	Public Law 101-83, Jul. 25, 1989
Energy and Water Development Appropriation Bill, 1990	Bayou Rapides Drainage Structure and Pumping Plant Directed the Secretary of the Army to incorporate existing flood control features for the Bayou Rapides Drainage Structure and Pumping Plant into the Lower Red River, South Bank Levees portion of the MR&T Project.	Public Law 101-514, Nov. 5, 1990
Supplemental Appropriations Bill for FY Ending Sep. 30, 1985 (PL 99-83), and the Water Resources Development Act of 1986 (PL 99-662)	Atchafalaya Basin Floodway System, LA. Authorizes and directs the Secretary of the Army acting through the Chief of Engineers to proceed with planning, design, engineering, and construction of 41 water resources projects, including Atchafalaya Basin Floodway System. For the Atchafalaya Basin Floodway Systems project, cost-sharing is only required for the recreation feature of the project. The flood control and environmental features are Federal costs. This act authorized basic cost sharing principles for the project. In particular, establishes that the fish and wildlife enhancement feature of this project is of national significance and therefore a 100% federal cost.	FY 1985 Supplemental Appropriations Bill (PL 99-88), and Water Resources Development Act of 1986 (PL 99-662).
Water Resources Development Act, 1992	Whiteman's Creek, Arkansas. Directed the Secretary of the Army to implement flood control improvement, which essentially consist of 6.1 miles of channel enlargement along streams within the city limits of Jonesboro, Arkansas.	Public Law 102-580 Oct. 31, 1992
Water Resources Development Act, 1992	New Madrid Harbor, Missouri Directed the Secretary of the Army to assume responsibility for maintenance of the New Madrid County Harbor constructed by non-Federal interests before that date of the enactment of this Act in lieu of maintaining the existing Federal channel.	Public Law 102-580 Oct. 31, 1992
Water Resources Development Act, 1996	Grand Prairie and Bayou Basin, Arkansas The project for flood control, Grand Prairie Region and Bayou Meto Basin, Arkansas, authorized by section 204 of the Flood Control Act of 1950 (64 Stat. 174) and deauthorized pursuant to section 1001(b) of the Water Resources Development Act of 1986 (33 U.S.C. 579a(b)), is authorized to be carried out ground water protection and conservation, agricultural water supply, and waterfowl management if the Secretary determines that the change in the scope of the project is technically sound, environmentally acceptable, and economic, as applicable.	Public Law 104-303 Oct. 12, 1996

**TABLE 41-D**  
**(Continued)**

**AUTHORIZING LEGISLATION**

Act or Authorization	Work Authorized	Document
Water Resources Development Act, 1996	White River, Arkansas The project for navigation, White river Navigation to Batesville, Arkansas, authorized by section 601(a) of the Water Resources Development Act of 1986 (100 Stat 4139) and deauthorized by section 52(b) of the Water Resources Development Act of 1988 (102 Stat. 4044), is authorized to be carried out by the Secretary.	Public Law 104-303 Oct 12, 1996
Water Resources Development Act, 1999	Memphis Harbor, Memphis, Tennessee Authorized to be carried out by the Secretary, if the Secretary determines that the project is technically sound, environmentally acceptable, and economically justified, as appropriate.	Public Law 106-53 Aug. 17, 1999
Water Resources Development	Tunica Lake Weir, Mississippi The Secretary shall conduct a study to determine the feasibility of constructing an outlet weir at Tunica Lake, Tunica county, Mississippi, and Lee County, Arkansas, for the purpose of stabilizing water levels in the lake. In carrying out the study, the Secretary shall include as part of the economic analysis the benefits derived from recreation uses at Tunica Lake and economic benefits associated with restoration of fish and wildlife habitat.	Public Law 106-53
Water Resources Development Acts, 1986, 1990 and 1999	Louisiana State Penitentiary Levee, Mississippi River, Louisiana Authorizes and directs the Secretary of the Army, acting through the Chief of Engineers to proceed with planning, design, engineering, and construction of improvements of 12 miles of existing levee along the Mississippi River which provides flood protection to the Louisiana State Penitentiary at Angola, LA. This act authorizes basic cost sharing principles, and establishes that the cost sharing will be shared on a 75%/25% basis with the state of Louisiana for this project. Authorizes the Secretary of the Army to consider credit for work performed by an non-Federal sponsor since project authorization.	Public Law 99-662 Nov. 17, 1986 Public Law 101-646 Nov. 28, 1990  Public Law 106-53 Aug. 17, 1999
Omnibus Consolidated and Emergency Appropriations For Fiscal Year 2001	Ten and Fifteen Mile Bayous, St. Francis River Basin, Arkansas Modified Section 204 of the Flood Control Act of 1950 to expand the boundaries of the project to include Ten- and Fifteen-Mile Bayous near West Memphis, Arkansas. Notwithstanding section 103(f) of the Water Resources Development Act of 1986, the flood control work at Ten- and Fifteen-Mile Bayous shall not be considered separable elements of the project.	House Report 4577 Dec 15, 2000

1. Incorporated into Mississippi River and tributaries project as shown in Table 41-E.
2. Date minor modification for blocked drainage was approved under delegated authority of the President, Mississippi River Commission, and in accordance with Sec. 10(p) of the 1946 Flood Control Act (Public Law 79-526).
3. Date minor modification was approved under discretionary authority of Chief of Engineers contained in May 15, 1928, Flood Control Act, as amended.
4. Projects approved under the provisions of Sec. 201 of Flood Control Act of Oct. 27, 1965.



**TABLE 41-E**                      **INCORPORATING AND AUTHORIZING  
LEGISLATION**

<b>Act of Incorporation</b>	<b>Public Law No.</b>	<b>Authorizing Act</b>	<b>Description</b>	<b>For Last Full Report See Annual Report for</b>
Jul. 24, 1946	79-526	Jun. 22, 1936	Tiptonville-Obion levee and drainage improvements, TN	1941, p. 943
Jul. 24, 1946	79-526	Jun. 22, 1936	Bayou des Glaisses diversion ditch, LA	1946, p. 1029
Jul. 24, 1946	79-526	Jun. 22, 1936	From North Little Rock, AR, to Gillett, AR, on north bank of Arkansas River (portion below Plum Bayou)	1946, p. 1053
Jul. 24, 1946	79-526	Aug. 18, 1941	White River levees, Augusta to Clarendon and De Valls Bluff, AR	1946, p. 1083
Jul. 24, 1946	79-526	Dec. 22, 1944	Boeuf and Tensas Rivers and Bayou Macon, LA	1945, p. 982
Jul. 24, 1946	79-526	Dec. 22, 1944	Big Sunflower River, etc.	1946, p. 1061
Jun. 30, 1948	80-858	Jul. 24, 1946	Devils Swamp barge channel at Baton Rouge, LA (Baton Rouge Harbor)	1948, p. 1059
May 17, 1950	81-516	Jun. 22, 1936	Jonesville, LA	1953, p. 773
May 17, 1950	81-516	Jul. 24, 1946	Lake Pontchartrain-Jefferson Parish, LA	1953, p. 737

**TABLE 41-F**                      **SUMMARY OF PRESENTLY ESTIMATED**  
**FEDERAL FIRST COST OF**  
**AUTHORIZED IMPROVEMENTS**

<b>Project Title</b>	<b>Estimated Cost<sup>1</sup> Fiscal Year 2004</b>
Completed features <sup>2</sup>	\$ 339,236,000
Mississippi River levees	2,044,000,000
Mud Lake Pumping Station, TN	5,270,000 <sup>3</sup>
Sec. 6 levees, 1928 Flood Control Act	4,000,000 <sup>3</sup>
Channel improvement	3,961,000,000
Atchafalaya Basin, LA	1,762,000,000
Atchafalaya Basin Floodway System, LA	202,000,000
Bayou Cocodrie and Tributaries, LA	20,400,000 <sup>3</sup>
Old River, LA	332,620,000
Lower Red River—South Bank Red River levees, LA	18,813,000 <sup>3</sup>
Eastern Rapides and South-Central Avoyelles Parishes, LA	50,000,000 <sup>3</sup>
Mississippi Delta Region, LA	108,750,000
Tensas Basin, AR and LA	447,631,000
Lower Arkansas River, AR	29,676,000 <sup>3</sup>
Grand Prairie Region, AR	208,000,000
Yazoo Basin, MS	1,977,453,000
Lower White River, AR (All except Big Creek & Tribs.)	16,802,000 <sup>3</sup>
Lower White River, AR (Big Creek & Tribs.)	55,900,000 <sup>3</sup>
Cache River Basin, AR	155,000,000
St. Francis Basin, AR and MO	445,470,000
Francis Bland Floodway Ditch (Eight Mile Creek), AR	15,062,000 <sup>3</sup>
L'Anguille River, AR	15,100,000 <sup>3</sup>
West Tennessee Tributaries, TN	169,600,000
Harris Fork Creek, TN and KY	14,300,000 <sup>3</sup>
Reelfoot Lake-Lake No. 9, TN and KY	(10,700,000) <sup>3</sup>
Reelfoot Lake, TN and KY (Completed)	440,000
Reelfoot Lake-Lake No. 9, TN and KY	10,260,000 <sup>3</sup>
West Kentucky Tributaries, KY	26,100,000 <sup>3</sup>
Sardis Dam (Dam Safety Assurance), MS	29,200,000
St. Johns Bayou and New Madrid Floodway, MO	64,600,000 <sup>4</sup>
Nonconnah Creek, TN and MS	27,890,000 <sup>4</sup>
Horn Lake Creek and Tributaries, TN and MS	11,285,000 <sup>4</sup>
Greenville Harbor, MS	32,400,000 <sup>4</sup>
Memphis Harbor (Ensley Berm), TN	23,100,000 <sup>4</sup>
Helena Harbor, Phillips County, AR	32,156,000 <sup>4</sup>
Helena, AR, and Vicinity	10,300,000 <sup>3,4</sup>
West Memphis, AR, and Vicinity	11,600,000 <sup>4,6</sup>
Louisiana State Penitentiary Levee, LA	18,800,000 <sup>4,7</sup>
Hickman Bluff, KY	17,495,000 <sup>3</sup>
Whiteman's Creek, AR	3,300,000
Reelfoot Lake, TN and KY (Ecosystem Restoration)	21,500,000 <sup>3,8</sup>

**TABLE 41-F**  
**(Continued)**

**SUMMARY OF PRESENTLY ESTIMATED  
FEDERAL FIRST COST OF  
AUTHORIZED IMPROVEMENTS**

<b>Project Title</b>	<b>Estimated Cost<sup>1</sup> Fiscal Year 2004</b>
Mississippi — Louisiana Estuarine Areas, MS and LA	79,200,000 <sup>5</sup>
Bayou Meto, AR	425,900,000
Lower White River:	(14,177,000)
Clarendon Levee, AR	1,576,000
Augusta to Clarendon, AR	12,601,000
Wolf River, TN	6,357,000
Morganza, LA, to Gulf of Mexico	442,000,000
<b>TOTAL</b>	<b>\$13,706,143,000</b>

1. Inflation projected through the construction period. Harbors; Lake Pontchartrain; Wolf River; completed roads.
2. Includes Bonnet Carre, Morganza, and New Madrid Floodways; Memphis, Greenville, and Vicksburg on main stem levees; channel construction works; Atchafalaya River and Basin; Wax Lake Outlet; Charenton Canal; Bayou des Glaises diversion channel, Boeuf Basin levees; Grant's Canal; De Valls Bluff, Jonesville, and Des Arc protection works; Baton Rouge Harbor; and miscellaneous features; Teche-Vermilion Basins, LA; Tensas National Wildlife Refuge, LA.
3. Incremental (not projected through the construction period).
4. Authorized by Water Resources Development Act of 1986, Public Law 99-662, Nov. 17, 1986.
5. Authorized by Water Resources Development Act of 1988, Public Law 100-676, Nov. 18, 1988.
6. Locals built their own project.
7. Authorized by Water Resources Development Act of 1999, Public Law 106-53, Aug. 17, 1999.
8. Authorized by Water Resource Development Act of 1999, Public Law 106-53, Aug. 17, 1999 and Report of the Chief of Engineers, Dec. 23, 1999.
9. Reauthorized by Water Resources Development Act of 1999, Public Law 106-53, Aug. 17, 1999.
10. Authorized by Water Resources Development Act of 2000, Public Law 106-541, Dec. 11, 2000.

**TABLE 41-G**                                      **MISSISSIPPI RIVER MAIN STEM**  
**CHANNEL IMPROVEMENTS**

<b>Location</b>		<b>Operations in 1,000 Cubic Yards</b>		
<b>District</b>	<b>Mileage</b>	<b>Fiscal Year 2004</b>		
	<b>Above Head of Passes</b>	<b>Channel Construction</b>	<b>Maintenance</b>	<b>Total</b>
New Orleans				
Baton Rouge Harbor				
(Devils Swamp)	235	--	96.1	96.1
Main stem channel	234-320	--	304.7	304.7
(Smithland and Wilkinson Pt Crossings)				
Atchafalaya Basin			1,564.4	1,564.4
Berwick Bay Harbor			0	0
Three Rivers				
Old River Lock Forebay and Tailbay	304		0	0
Vicksburg				
Main stem channel	322-600	--	1,422.0	1,422.0
Vicksburg Harbor	437	--	0	0
Greenville Harbor	537	--	170.0	170.0
Memphis				
Main stem channel	600-954	--	6,542.4	6,542.4
Helena Harbor, Phillips County	653	--	180.7	180.7
Memphis Harbor, McKellar Lake	725	--	1,207.1	1,207.1
TOTAL		--	23,153.5	23,153.5

TABLE 41-H

**BANK REVETMENTS, DIKES, AND FORESHORE PROTECTION:  
NEW ORLEANS DISTRICT (FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY						Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)	
			Construction								
			New Work			Reinforcement					Maintenance (Squares) <sup>1</sup>
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>				
MISSISSIPPI RIVER											
Standard Revetment:											
Venice, LA	12	R	--	--	--	--	--	--	--	49,552	
Olga, LA	17	L	--	--	--	--	--	--	--	19,053	
Lower Childress-			--	--	--	--	--	--	--		
Fort Jackson, LA	21	R	--	--	--	--	--	--	--	15,430	
Neptune, LA	23	L	--	--	--	--	--	--	--	14,399	
Buras, LA	25	R	--	--	--	--	--	--	--	17,283	
Tropical Bend, LA	31	R	--	--	--	--	--	--	--	25,012	
Bayou Lamoque, LA	33	L	--	--	--	--	--	--	--	21,505	
Port Sulphur, LA	38	R	--	--	--	--	--	--	--	36,995	
Nestor, LA	42	L	--	--	--	--	--	--	--	14,192	
Point Michel, LA	44	R	--	--	--	--	--	7,003	--	22,932	
Bohemia, LA	46	L	--	--	--	--	--	--	--	16,455	
Diamond, LA	48	R	--	--	--	--	--	--	--	11,600	
Gravolet, LA	51	L	--	--	--	796	3,340	--	--	23,874	
Junior, LA	54	R	--	--	--	--	--	--	--	23,599	
Harlem, LA	57	L	--	--	--	--	--	--	--	15,148	
Myrtle Grove, LA	59	R	--	--	--	--	--	--	--	17,435	
Monsecour, LA	61	L	--	--	--	--	--	--	--	13,340	
Alliance, LA	63	R	--	--	--	--	--	--	--	17,265	
Belair, LA	65	L	--	--	--	--	--	--	--	26,111	
Jesuit Bend, LA	68	R	--	--	--	--	--	--	--	24,978	
Linwood, LA	71	L	--	--	--	--	--	--	--	14,643	
Oak Point, LA	72	R	--	--	--	--	--	--	--	16,426	
Scarsdale, LA	75	L	--	--	--	--	--	9,298	--	17,825	
English Turn, LA	78	R	--	--	--	--	--	--	--	21,845	
Poydras, LA	82	L	--	--	--	--	--	--	--	45,864	
Twelve Mile Point, LA	84	R	--	--	--	--	--	--	--	9,979	
Cutoff, LA	88	R	--	--	--	--	--	--	--	23,234	

TABLE 41-H  
(Continued)BANK REVETMENTS, DIKES, AND FORESHORE PROTECTION:  
NEW ORLEANS DISTRICT (FISCAL YEAR 2004)

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY						Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			Construction							
			New Work			Reinforcement		Maintenance (Squares) <sup>1</sup>		
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>					
Standard Revetment:										
Third District, LA	92	L	--	--	--	--	--	--	--	28,372
Algiers Point, LA	95	R	--	--	--	--	--	--	--	12,238
Gouldsboro, LA	96	R	--	--	--	--	--	--	--	4,960
Gretna, LA	97	R	--	--	--	--	--	--	--	10,340
Greenville, LA	100	R	--	--	--	--	--	--	--	22,045
Carrollton, LA	104	L	--	--	--	--	--	--	--	16,262
Avondale, LA	108	R	--	--	--	--	--	--	--	28,409
Kenner, LA	113	L	--	--	--	--	--	--	--	45,492
Luling, LA	119	R	--	--	--	--	--	--	--	44,893
Destrehan, LA	120	L	--	--	--	--	--	--	--	5,409
Goodhope, LA	125	L	--	--	--	--	--	--	--	24,531
Waterford, LA	129	R	--	--	--	739	3,810	--	--	23,106
Montz, LA	132	L	--	--	--	--	--	--	--	17,502
Lucy, LA	136	R	--	--	--	--	--	--	--	19,450
Reserve, LA	138	L	--	--	--	851	4,833	--	--	23,234
Willow Bend, LA	141	R	--	--	--	--	--	--	--	13,227
Angelina, LA	145	L	--	--	--	--	--	--	--	32,762
Vacherie, LA	148	R	--	--	--	--	--	--	--	26,025
Belmont, LA	152	L	--	--	--	--	--	--	--	25,575
Richbend, LA	157	R	--	--	--	--	--	--	--	38,498
Romeville, LA	162	L	--	--	--	--	--	--	--	33,986
St. Alice, LA	165	R	--	--	--	--	--	--	--	31,130
Burnside, LA	169	L	--	--	--	1,774	11,215	--	--	29,304
Aben, LA	173	R	--	--	--	--	--	13,368	--	11,700
St. Elmo, LA	175	L	--	--	--	--	--	--	--	12,014
Smoke Bend, LA	177	R	--	--	--	--	--	--	--	18,792
Marchand, LA	181	L	--	--	--	--	--	15,071	--	19,603
Philadelphia Point, LA	183	R	--	--	--	--	--	--	--	5,379
New River Bend, LA	185	L	--	--	--	--	--	--	--	45,672

**TABLE 41-H  
(Continued)**

**BANK REVETMENTS, DIKES, AND FORESHORE PROTECTION:  
NEW ORLEANS DISTRICT (FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY Construction						Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			New Work			Reinforcement				
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>	<u>Maintenance</u> (Squares) <sup>1</sup>		
Standard Revetment:										
White Castle, LA	193	R	--	--	--	--	--	--	--	45,968
St. Gabriel, LA	201	L	--	--	--	--	--	--	--	33,292
Plaquemine, LA	209	R	--	--	--	--	--	--	--	45,012
Manchac, LA	215	L	--	--	--	--	--	--	--	38,976
Missouri Bend, LA	222	R	--	--	--	--	--	--	--	30,437
Arlington, LA	226	L	--	--	--	--	--	--	--	18,050
Port Allen, LA	231	R	--	--	--	--	--	--	--	17,627
Scotlandville, LA	234	L	--	--	--	--	--	--	--	1,623
Allendale, LA	239	R	--	--	--	--	--	--	--	29,520
Springfield, LA	244	L	--	--	--	--	--	--	--	25,690
Arbroth, LA	249	R	--	--	--	--	--	--	--	23,526
Faulkner Lake, LA	253	L	--	--	--	--	--	--	--	18,807
Grand Bay , LA	257	R	--	--	--	--	--	--	--	24,909
Bayou Sara, LA	263	L	--	--	--	--	--	--	--	29,722
Red Store, LA	268	R	--	--	--	--	--	--	--	18,464
Arrow Bend, LA	272	L	--	--	--	--	--	--	--	13,600
Boise Point, LA	275	R	--	--	--	--	--	--	--	16,094
Morganza, LA	279	R	--	--	--	--	--	--	--	20,513
Iowa Point, LA	282	L	--	--	--	--	--	--	--	15,477
Brunette Point, LA	285	R	--	--	--	--	--	--	--	14,335
Greenwood, LA	290	L	--	--	--	--	--	--	--	26,032
Hog Point , LA	296	R	--	--	--	--	--	--	--	37,516
Carr Point, LA	302	R	--	--	--	--	--	--	--	20,725
Above Old River, LA	305	R	--	--	--	--	--	--	--	9,958
Fort Adams, LA	310	L	--	--	--	--	--	--	--	24,206
Point Breeze, LA	314	R	--	--	--	--	--	--	--	13,565
Coochie, LA	317	R	--	--	--	--	--	--	--	17,150

**TABLE 41-H  
(Continued)****BANK REVETMENTS, DIKES, AND FORESHORE PROTECTION:  
NEW ORLEANS DISTRICT (FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY Construction						Nonop- erative Since Prior FY (Linear Feet)	Opera- tive Thru This FY (Linear Feet)
			New Work			Reinforcement				
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares)	(Linear Feet)	(Squares)	Maintenance (Squares)		
Standard Revetment: Palmetto, MS	322	L	--	--	--	--	--	--	--	34,650
Total Revetment New Orleans District, Mississippi River			0	0	0	4,160	23,198	44,740	0	1,911,328
			0.0 Miles							361.99 Miles
Dikes:										
Profit Island Chute Closure, LA	252	L	--	--	--	--	--	--	--	4,315
Hog Point, LA	299	L	--	--	--	--	--	--	--	6,850
Hog Point Chute Closure	300	R	--	--	--	--	--	--	--	900
Total Dikes New Orleans District, Mississippi River										12,065 (2.29 Miles)
OLD RIVER CONTROL										
Standard Revetment:										
Inflow channel	315	L	--	--	--	--	--	--	--	2,415
Inflow channel	315	R	--	--	--	--	--	--	--	4,365
Outflow channel	315	L&R	--	--	--	--	--	--	--	19,891
Auxiliary inflow channel	312	L&R	--	--	--	--	--	--	--	17,200
Auxiliary outflow channel	312	L&R	--	--	--	--	--	--	--	5,790
Total Standard Revetment, Old River			--	--	--	--	--	--	--	49,661 (9.41 Miles)



**TABLE 41-H  
(Continued)**

**BANK REVETMENTS, DIKES, AND FORESHORE PROTECTION:  
NEW ORLEANS DISTRICT (FISCAL YEAR 2004)**

Location	Operations This FY							Nonop- erative Since Prior FY (Linear Feet)	Opera- tive Thru This FY (Linear Feet)	
	Above Head of Passes (Miles)	Bank R or L	Construction							
			New Work			Reinforcement				Maintenance (Squares)
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares)	(Linear Feet)	(Squares)			
ATCHAFALAYA RIVER										
Standard Revetment:										
Mile 1.0, LA	1	L	--	--	--	--	--	--	--	4,150
Coville Bayou, LA	3	R	--	--	--	--	--	--	--	6,550
Legonier, LA	4	L	--	--	--	--	--	--	--	8,940
Simmesport, LA	6	R	--	--	--	--	--	--	--	12,491
Kuhlman Bayou, LA	8	L	--	--	--	--	--	--	--	5,565
Odenburg, LA	8	R	--	--	--	--	--	--	--	5,375
Jacoby, LA	10	L	--	--	--	--	--	--	--	10,269
Cason, LA	13	R	--	--	--	--	--	--	--	10,798
McCrea, LA	14	L	--	--	--	--	--	--	--	6,572
Woodside, LA	15	R	--	--	--	--	--	6,725	--	13,002
Provosty, LA	17	L	--	--	--	--	--	--	--	9,111
Crooked Bayou, LA	19	R	3,040	67	10,310	--	--	--	--	20,294
Mercier, LA	22	L	--	--	--	--	--	--	--	13,000
Barberton, LA	24	R	--	--	--	--	--	--	--	3,592
Evans Point, LA	24	L	--	--	--	--	--	--	--	6,668
Goudeau, LA	26	R	--	--	--	--	--	--	--	3,938
Morris Bayou, LA	27	L	--	--	--	--	--	--	--	5,440
Goodwood, LA	28	R	--	--	--	--	--	--	--	8,505
Red Cross, LA	30	L	--	--	--	--	--	--	--	9,608
Melville, LA	31	R	--	--	--	--	--	--	--	5,660
Cross Bayou, LA	31	L	--	--	--	--	--	--	--	6,065
Melville South, LA	32	R	--	--	--	--	--	--	--	13,340
Toles, LA	35	L	--	--	--	--	--	--	--	7,302
Petite Prairie, LA	36	R	--	--	--	--	--	--	--	8,381
Three Mile Bayou, LA	38	R	--	--	--	--	--	--	--	6,330

**TABLE 41-H**                      **BANK REVETMENTS, DIKES, AND FORESHORE PROTECTION:**  
**(Continued)**                      **NEW ORLEANS DISTRICT (FISCAL YEAR 2004)**

Location	Operations This FY Construction								Non-operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
	Above Head of Passes (Miles)	Bank R or L	New Work					Maintenance (Squares)		
			Extension (Linear Feet)	Lap (Linear Feet)	(Squares)	Reinforcement				
						(Linear Feet)	(Squares)			
Standard Revetment:										
Holloway Lake, LA	37	L	--	--	--	--	--	--	--	7,085
Bayou Sherman, LA	39	L	--	--	--	--	--	--	--	5,200
Krotz Springs, LA	41	R	--	--	--	--	--	--	--	7,925
Sherburne, LA	43	L	--	--	--	--	--	--	--	10,960
Bayou Big Graw, LA	45	R	--	--	--	--	--	--	--	14,164
Coswell Bayou, LA	48	L	--	--	--	--	--	--	--	6,490
Courtableau, LA	49	R	--	--	--	--	--	--	--	5,374
Alabama Bayou, LA	50	L	--	--	--	--	--	--	--	9,410
Indian Bayou, LA	52	R	--	--	--	--	--	--	--	7,098
Happytown, LA	53	L	--	--	--	--	--	--	--	7,285
Otis Landing, LA	54	R	--	--	--	--	--	--	--	5,251
Morgan City Front, LA	115	L	--	--	--	--	--	--	--	3,410
Berwick South	12	R	--	--	--	--	--	--	--	1,428
Total Standard Revetment										
Atchafalaya River			3,040 (.58 Miles)	67	10,310	0	0	6,725	0	302,026 (57.20 Miles)
Dikes:										
Ten Mile Dikes	10	R	--	--	--	--	--	--	--	2,500 (0.47 Miles)
Lower Red River										
			Below Confluence of Old River Outflow Channel and Red River (Miles)							
Standard Revetment:										
Long Lake, LA	10	R	--	--	--	--	--	--	--	6,652
Naples, LA	7	R	--	--	--	--	--	--	--	6,190
Turnbull Island, LA	9	L	--	--	--	--	--	--	--	11,038
Total Standard Revetment			--	--	--	--	--	0	--	23,880 (4.52 Miles)

**TABLE 41-H**  
**(Continued)**

**BANK REVETMENTS, DIKES, AND FORESHORE PROTECTION:**  
**NEW ORLEANS DISTRICT (FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY Construction						Maintenance (Tons of Stone)	Nonop- erative Since Prior FY (Linear Feet)	Opera- tive Thru This FY (Linear Feet)
			New Work			Reinforcement					
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Tons of Stone)	(Linear Feet)	(Tons of Stone)				
Dikes:											
None											
MISSISSIPPI RIVER											
Foreshore Protection:											
Port Allen	233.0	R	--	--	--	--	--	--	--	7,500	
Cottage Plantation	222.6	L	--	--	--	--	--	--	--	2,000	
Upper Plaquemine Point	210.5	L	--	--	--	--	--	--	--	4,350	
Lower Plaquemine Point	207.0	L	--	--	--	--	--	--	--	2,935	
Point Pleasant	201.7	R	--	--	--	--	--	--	--	5,221	
Upper Point Clair	196.0	L	--	--	--	--	--	--	--	0	
Point Clair	191.0	L	--	--	--	--	--	--	--	10,251	
Belle Grove	189.9	R	--	--	--	--	--	--	--	0	
Eighty-One Mile Point	176.0	L	--	--	--	--	--	--	--	2,890	
Donaldsonville	174.2	R	--	--	--	--	--	--	--	0	
Point Houmas	168.9	R	--	--	--	--	--	--	--	5,400	
Sunshine	167.4	L	--	--	--	--	--	--	--	900	
Union	166.3	L	--	--	--	--	--	--	--	6,500	
Convent	158.3	L	--	--	--	--	--	--	--	11,900	
Oak Alley	153.4	R	--	--	--	--	--	--	--	7,800	
Lutcher	148.6	L	--	--	--	--	--	--	--	8,910	
Wallace	145.5	R	--	--	--	--	--	--	--	10,390	
Garyville	140.4	L	--	--	--	--	--	--	--	0	
Edgard	138.2	R	--	--	--	--	--	--	--	12,410	
Reserve	136.0	L	--	--	--	--	--	--	--	2,200	
Waterford	129.0	R	--	--	--	--	--	--	--	500	
26 Mile Point	122.8	L	--	--	--	--	--	--	--	1,320	
Destrehan	121.0	L	--	--	--	--	--	--	--	0	
St. Rose	120.8	L	--	--	--	--	--	--	--	9,830	
Lower St. Rose	116.6	L	--	--	--	--	--	--	--	7,050	
Ama	115.0	R	--	--	--	--	--	--	--	0	

**TABLE 41-H**  
**(Continued)**

**BANK REVETMENTS, DIKES, AND FORESHORE PROTECTION:**  
**NEW ORLEANS DISTRICT (FISCAL YEAR 2004)**

Location	Operations This FY								Nonop- erative Since Prior FY (Linear Feet)	Opera- tive Thru This FY (Linear Feet)
	Construction									
	Above Head of Passes (Miles)	Bank R or L	New Work			Reinforcement		Maintenance (Tons of Stone)		
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Tons of Stone)	(Linear Feet)	(Tons of Stone)			
Foreshore Protection:										
American Cyanamid	114.8	R	--	--	--	--	--	--	--	4,788
Willswood	113.2	R		--		--	--	--	--	3,980
Avondale	109.4	R	--	--	--	--	--	--	--	6,500
Twelve Mile Point	108.9	L	--	--	--	--	--	--	--	4,580
Avondale	105.5	R	--	--	--	--	--	--	--	2,070
Nine Mile Point	105.0	R	--	--	--	--	--	--	--	1,760
Greenville	100.0	R	--	--	--	--	--	--	--	6,900
Snowdrift	97.6	R	--	--	--	--	--	--	--	8,450
Gretna-Gouldsboro	96.7	R	--	--	--	--	--	--	--	1,683
Algiers	95.4	R	--	--	--	--	--	--	--	1,548
Holy Cross	92.2	L	--	--	--	--	--	--	--	1,915
Arabi	91.9	L	--	--	--	--	--	--	--	6,130
Quarantine	91.5	R	--	--	--	--	--	--	--	3,805
Huntlee	90.4	R	--	--	--	--	--	--	--	3,139
Chalmette	90.2	L	--	--	--	--	--	--	--	1,260
Norman	90.0	R	--	--	--	--	--	--	--	2,968
Brou	89.5	L	--	--	--	--	--	--	--	3,030
Auora	89.3	R	--	--	--	--	--	--	--	3,700
Blythe Blvd	88.6	R	--	--	--	--	--	--	--	4,345
Upper Stanton	86.5	R	--	--	--	--	--	--	--	12,890
Saxonholm-Docville	86.0	L	--	--	--	--	--	--	--	1,060
Pecan Grove-Story	85.8	L	--	--	--	--	--	--	--	1,910
Story-Allo	84.5	L	--	--	--	--	--	--	--	5,400
Delacroix	84.2	R	--	--	--	--	--	--	--	8,220
Twelve Mile Point	83.5	R	--	--	--	--	--	--	--	1,300
Merrit	83.0	L	--	--	--	--	--	--	--	7,800
Saxonholm-Docville	82.5	L	--	--	--	--	--	--	--	7,700
Naval Depot	82.5	R	--	--	--	--	--	--	--	3,096
Caernarvon	81.2	L	--	--	--	--	--	--	--	13,200

**TABLE 41-H  
(Continued)**

**BANK REVETMENTS, DIKES, AND FORESHORE PROTECTION:  
NEW ORLEANS DISTRICT (FISCAL YEAR 2004)**

Location	Operations This FY								Nonop- erative Since Prior FY (Linear Feet)	Opera- tive Thru This FY (Linear Feet)
	Above Head of Passes (Miles)	Bank R or L	Construction							
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Tons of Stone)	Reinforcement		Maintenance (Tons of Stone)		
						(Linear Feet)	(Tons of Stone)			
Foreshore Protection:										
English Turn	79.3	L	--	--	--	--	--	--	--	7,500
Little Rock	78.8	R	--	--	--	--	--	--	--	9,268
St. Claire	78.3	L	--	--	--	--	--	--	--	1,025
Fort St. Leon	78.2	R	--	--	--	--	--	--	--	10,700
Scarsdale	75.5	L	--	--	--	--	--	--	--	16,611
Belle Chasse	75.5	R	--	--	--	--	--	--	--	11,500
Stella-Delcour	73.6	L	--	--	--	--	--	--	--	6,405
Oak Point	73.3	R	--	--	--	--	--	--	--	13,766
Promised Land-Woodlawn	70.5	L	--	--	--	--	--	--	--	15,495
Augustaive Oak	70.5	R	--	--	--	--	--	--	--	13,135
Jesuit Bend	69.2	R	--	--	--	--	--	--	--	16,454
Fanny-Belair	66.8	L	--	--	--	--	--	--	--	12,400
Sara-Star	66.3	R	--	--	--	--	--	--	--	2,100
Star	65.8	R	--	--	--	--	--	--	--	5,470
Bayhi	64.0	R	--	--	--	--	--	--	--	11,190
Burbridge	63.2	L	--	--	--	--	--	--	--	12,335
Beau-Carlisle	62.3	L	--	--	--	--	--	--	--	6,258
Alliance	62.0	R	--	--	--	--	--	--	--	4,300
Monsecour-Poverty Point	60.3	L	--	--	--	--	--	--	--	7,380
St. Rosalie	61.4	R	--	--	--	--	--	--	--	6,976
Irontown	60.0	R	--	--	--	--	--	--	--	2,298
Myrtle Grove-Woodpark	58.8	R	--	--	--	--	--	--	--	8,450
Harlem	57.0	L	--	--	--	--	--	--	--	15,550
Wood Park-Deer Range	56.0	R	--	--	--	--	--	--	--	17,650
Nero	54.7	L	--	--	--	--	--	--	--	4,450
Deer Range	54.1	R	--	--	--	--	--	--	--	4,220
Upper Point-Aa-Hache	53.5	L	--	--	--	--	--	--	--	9,101
Junior	53.5	R	--	--	--	--	--	--	--	7,811
Point Celeste	52.2	R	--	--	--	--	--	--	--	3,300

**TABLE 41-H  
(Continued)**

**BANK REVETMENTS, DIKES, AND FORESHORE PROTECTION:  
NEW ORLEANS DISTRICT (FISCAL YEAR 2004)**

Location	Operations This FY								Nonop- erative Since Prior FY (Linear Feet)	Opera- tive Thru This FY (Linear Feet)
	Above Head of Passes (Miles)	Bank R or L	Construction							
			New Work			Maintenance (Tons of Stone)				
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Tons of Stone)					
Foreshore Protection:										
Davant	51.5	L	--	--	--	--	--	--	--	10,795
St. Thomas	50.0	L	--	--	--	--	--	--	--	6,430
Woodland	50.0	R	--	--	--	--	--	--	--	14,800
Point-Aa-Hache	48.1	L	--	--	--	--	--	--	--	23,030
Nolan	47.2	R	--	--	--	--	--	--	--	13,400
Socola	46.5	R	--	--	--	--	--	--	--	8,255
Point Michel	44.2	R	--	--	--	--	--	--	--	7,350
Happy Jack	43.0	R	--	--	--	--	--	--	--	18,785
Port Sulphur	39.7	R	--	--	--	--	--	--	--	6,430
Little Texas	39.0	R	--	--	--	--	--	--	--	300
Home Place	37.6	R	--	--	--	--	--	--	--	13,250
Nairn	34.5	R	--	--	--	--	--	--	--	5,915
Sixty Mile Point	32.1	R	--	--	--	--	--	--	--	0
Tropical Bend	31.2	R	--	--	--	--	--	--	--	5,775
Bowers	30.8	R	--	--	--	--	--	--	--	3,836
Empire	29.7	R	--	--	--	--	--	--	--	2,865
Anderson	29.2	R	--	--	--	--	--	--	--	6,100
Fredrick	27.5	R	--	--	--	--	--	--	--	3,820
Buras	26.0	R	--	--	--	--	--	--	--	13,495
Lower Buras	24.0	R	--	--	--	--	--	--	--	8,900
Triumph	22.5	R	--	--	--	--	--	--	--	5,220
Fort Jackson	21.9	R	--	--	--	--	--	--	--	16,690
Grand Prairie	19.2	L	--	--	--	--	--	--	--	1,350
Upper Commander	18.2	R	--	--	--	--	--	--	--	3,180
Commander	18.0	R	--	--	--	--	--	--	--	22,232

**TABLE 41-H**  
**(Continued)**

**BANK REVETMENTS, DIKES, AND FORESHORE PROTECTION:**  
**NEW ORLEANS DISTRICT (FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY					Maintenance (Tons of Stone)	Nonop- erative Since Prior FY (Linear Feet)	Opera- tive Thru This FY (Linear Feet)
			Construction							
			New Work							
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Tons of Stone)	Reinforcement				
						(Linear Feet)	(Tons of Stone)			
Foreshore Protection:										
Boothville-Commander	16.0	R	--	--	--	--	--	--	--	1,824
Upper Venice	12.0	R	--	--	--	--	--	--	--	14,800
Total Foreshore Protection										
New Orleans District,										
Mississippi River			0	--	--	--	--	--	--	757,309
			0.0 Miles							(143.43 Miles)

1. Gross squares articulated concrete mattress (100 square feet).

**TABLE 41-I**                      **BANK REVETMENTS AND DIKES: VICKSBURG DISTRICT**  
**(FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY						Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			Construction							
			New Work			Reinforcement				
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>	<u>Maintenance</u> (Squares) <sup>1</sup>		
MISSISSIPPI RIVER										
Standard Revetment:										
Bougere Bend, LA .....	329	R	--	--	--	--	--	--	--	26,055
Dead Mans Bend, MS .....	335	L	--	--	--	--	--	--	--	33,220
Glasscock Cutoff, MS-LA.....	342	R	--	--	--	--	--	--	--	26,083
Railroad Landing, MS .....	346	L	--	--	--	--	--	--	--	16,291
St. Catherine Bend, LA .....	350	R	--	--	--	--	--	--	--	29,108
Morville, LA .....	356	R	--	--	--	8,583	32,020	5,720	--	16,917
Natchez Island, MS .....	357	R	--	--	--	--	--	--	--	2,180
Carthage, MS .....	361	L	--	--	--	--	--	--	--	20,350
Vidalia Casting Field.....	363	L	--	--	--	--	--	--	--	2,670
Natchez Front, MS .....	364	L	--	--	--	--	--	--	--	6,510
Giles Cutoff, LA-MS.....	366	R	--	--	--	--	--	--	--	12,020
Gibson, LA.....	371	R	--	--	--	--	--	--	--	--
Ashland, LA-MS .....	374	L	--	--	--	--	--	--	--	33,427
Kempe Bend, LA .....	383	R	--	--	--	--	--	--	--	30,087
Browns Field, LA.....	389	R	--	--	--	--	--	--	--	9,280
Goldbottom, MS.....	392	L	--	--	--	--	--	--	--	30,250
Hardscrabble, LA .....	398	R	--	--	--	--	--	--	--	22,530
Grand Gulf, MS.....	403	L	--	--	--	--	--	--	--	57,318
Point Pleasant, MS-LA.....	413	R	--	--	--	--	--	--	--	32,345
Togo Island, LA .....	415	R	--	--	--	--	--	--	--	7,080
Lake Karnac, LA-MS .....	419	L	--	--	--	--	--	--	--	19,260
Diamond Point, LA-MS .....	423	R	--	--	--	--	--	--	--	19,310
Oakbend, MS .....	425	L	--	--	--	--	--	--	--	5,342
Reid-Bedford, LA .....	429	R	--	--	--	--	--	--	--	18,392
Racetrack, MS.....	433	L	--	--	--	--	--	--	--	15,517
Barge Line Terminal, MS .....	437	L	--	--	--	--	--	--	--	3,040
Vicksburg Harbor, MS.....	437	L	--	--	--	--	--	--	--	7,350
Delta Point, LA .....	437	R	--	--	--	--	--	--	--	7,650



**TABLE 41-I**  
**(Continued)**

**BANK REVETMENTS AND DIKES: VICKSBURG DISTRICT**  
**(FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY						Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			Construction							
			New Work			Reinforcement		Maintenance (Squares) <sup>1</sup>		
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>			
Standard Revetment:										
King’s Point—Opposite										
Delta Point, LA-MS .....	439	L	--	--	--	--	--	--	--	19,330
False Point, LA.....	443	R	--	--	--	--	--	--	--	16,360
Marshall-Brown’s Point,										
LA-MS .....	446	L	--	--	--	--	--	--	--	19,580
Milliken Bend, LA .....	453	R	--	--	--	--	--	--	--	46,140
Belle Island, LA-MS .....	460	L	--	--	--	--	--	--	--	24,160
Goodrich, LA .....	467	R	--	--	--	--	--	--	--	40,765
Cottonwood Bar, MS.....	470	R	--	--	--	--	--	--	--	18,580
Filter-Cottonwood, MS .....	474	L	--	--	--	--	--	--	--	44,220
Hagaman, LA .....	481	R	--	--	--	--	--	--	--	37,756
Ben Lomond, MS.....	486	L	--	--	--	--	--	--	--	10,235
Baleshed Towhead-Stack										
Island, LA-MS.....	488	R	--	--	--	--	--	--	--	53,214
Lake Providence, LA.....	489	R	--	--	--	--	--	--	--	11,600
Mayersville, MS .....	497	L	--	--	--	--	--	--	--	34,992
Sarah Island-Opossum										
Point, LA-MS.....	501	R	--	--	--	--	--	--	--	26,815
Carolina, MS .....	507	L	--	--	--	--	--	--	--	11,080
Cracraft, AR .....	511	R	--	--	--	--	--	--	--	22,210
Worthington, MS-AR .....	514	R	--	--	--	--	--	--	--	8,350
Walnut Point Kentucky Bend, MS .	519	L	--	--	--	--	--	19,492	--	45,653
American Cutoff, MS-AR .....	526	L	--	--	--	--	--	--	--	2,980
Sunnyside-Lakeport, AR .....	530	R	--	--	--	--	--	--	--	33,685
Vancluse, AR .....	534	R	--	--	--	--	--	--	--	13,016
Island 84, AR-MS.....	535	L	--	--	--	--	--	--	--	13,475
Warfield Point, MS.....	537	L	--	--	--	--	--	--	--	4,320
Leland-LaGrange, AR-MS .....	538	L	--	--	--	--	--	--	--	14,150

TABLE 41-I  
(Continued)BANK REVETMENTS AND DIKES: VICKSBURG DISTRICT  
(FISCAL YEAR 2004)

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY Construction					Maintenance (Squares) <sup>1</sup>	Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			New Work			Reinforcement				
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>			
Standard Revetment:										
Spanish Moss, AR .....	539	R	--	--	--	--	--	--	--	4,580
Tarpley Island, MS .....	542	R	--	--	--	--	--	--	--	2,000
Miller Bend, MS.....	544	L	--	--	--	--	--	--	--	29,360
Island 82, AR.....	546	R	--	--	--	--	--	--	--	3,080
Ashbrook Island, MS.....	549	R	--	--	--	--	--	--	--	3,455
Arkansas City- Yellow Bend, AR .....	553	R	--	--	--	--	--	--	--	48,386
Huntington Point, MS .....	556	L	--	--	--	--	--	--	--	21,205
Pair O’Dice, AR .....	561	R	--	--	--	--	--	--	--	9,095
Eutaw-Mounds, MS .....	563	L	--	--	--	4,272	13,638	3,489	--	40,188
Cypress Bend, AR .....	568	R	--	--	--	--	--	--	--	34,405
Catfish Point, MS .....	573	L	--	--	--	--	--	--	--	20,075
Ozark, AR-MS.....	578	R	--	--	--	--	--	--	--	22,015
Prentiss, AR-MS.....	582	L	--	--	--	--	--	--	--	20,315
Rosedale Bend, AR .....	585	L	--	--	--	--	--	--	--	8,022
Riverton, MS .....	586	L	--	--	--	--	--	--	--	12,500
Klondike, AR .....	588	R	--	--	--	--	--	9,771	--	25,295
Victoria Bend-Terrene, MS .....	593	L	--	--	--	--	--	--	--	29,245
Lake Concordia, MS .....	596	L	--	--	--	--	--	--	--	11,583
Big Island, AR.....	598	R	--	--	--	--	--	--	--	16,515
Smith Point, MS .....	601	L	--	--	--	--	--	--	--	18,185
Dennis, MS.....	611	L	--	--	--	--	--	--	--	25,195
Cessions, MS.....	615	L	--	--	--	--	--	--	--	10,910
Total Revetment, Vicksburg District, Mississippi River.....			0	--	0	12,855	45,658	38,472	--	1,523,857 (288.60 Miles)

**TABLE 41-I  
(Continued)**

**BANK REVETMENTS AND DIKES: VICKSBURG DISTRICT  
(FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY Construction						Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			New Work			Reinforcement				
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>	<u>Maintenance</u> (Squares) <sup>1</sup>		
Dikes:					(2)			(3)		
Jackson Point, MS .....	330	L	--	--	--	--	--	--	--	4,306
Buck Island, MS.....	339	L	--	--	--	--	--	--	--	6,334
Opposite Warnicott Ldg., MS.....	352	L	--	--	--	--	--	--	--	10,791
Natchez Island, LA-MS.....	358	R	--	--	--	--	--	--	--	14,608
Opposite Rifle Point, MS .....	369	L	--	--	--	--	--	--	--	3,214
Rifle Point, LA .....	369	R	--	--	--	--	--	--	--	4,197
Waterproof Bar, LA.....	379	R	--	--	--	--	--	--	--	14,580
Spithead Towhead, MS.....	386	L	--	--	--	--	--	--	--	9,681
Browns Field, LA.....	388	R	--	--	--	--	--	--	--	11,557
Cottage Bend, LA-MS.....	389	L	--	--	--	--	--	--	--	14,049
Bondurant Towhead, LA .....	394	R	--	--	--	--	--	--	--	6,029
Coffee Point, LA .....	405	R	--	--	--	--	--	--	--	11,925
Yucatan, MS.....	410	R	--	--	--	--	--	--	--	13,932
Togo Island, LA .....	416	L	--	--	--	--	--	--	--	8,256
Newtown Bend, LA.....	420	R	--	--	--	--	--	--	--	6,739
Diamond Cutoff, MS.....	423	L	--	--	--	--	--	--	--	6,711
Below Racetrack, MS.....	430	L	--	--	--	--	--	--	--	19,378
Racetrack Towhead, MS.....	431	R	--	--	--	--	--	--	--	15,270
Delta Point, LA .....	439	R	1,351	--	--	--	1,351	--	--	2,326
False Point, LA.....	441	R	--	--	--	--	--	--	--	5,675
Marshall Cutoff, LA .....	448	R	--	--	--	--	--	--	--	5,166
Below Grand Gulf, MS .....	399	L	--	--	--	--	--	--	--	4,783
Fritz Island, LA .....	338	R	--	--	--	--	--	--	--	4,160
Forest Home Towhead, LA .....	449	L	--	--	--	--	--	--	--	15,873
Willow Cutoff, LA .....	462	R	--	--	--	--	--	--	--	5,197
Tennessee Bar, MS .....	465	L	--	--	--	--	--	--	--	8,166
Arcadia Point, MS .....	470	L	--	--	--	--	--	--	--	9,463
Cottonwood Bar, MS.....	471	R	--	--	--	--	--	--	--	2,406
Point Lookout, LA .....	478	R	--	--	--	--	--	--	--	2,751

**TABLE 41-I**  
**(Continued)**

**BANK REVETMENTS AND DIKES: VICKSBURG DISTRICT**  
**(FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY Construction					<u>Maintenance</u> (Squares) <sup>1</sup>	Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			New Work			Reinforcement				
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>			
Dikes:					(2)		(3)			
Ajax Bar, MS.....	482	L	--	--	--	--	--	--	--	28,152
Ben Lomond, MS.....	488	L	--	--	--	--	--	--	--	24,667
Baleshed Ldg., MS.....	493	L	--	--	--	--	--	--	--	15,721
Wilson Point, LA.....	500	R	--	--	--	--	--	--	--	8,423
Corregidor, MS.....	505	L	--	--	--	--	--	--	--	6,730
Carolina, AR.....	509	L	--	--	--	--	--	--	--	2,897
Cracraft Lower, AR.....	510	R	--	--	--	--	--	--	--	10,329
Cracraft, AR.....	513	R	--	--	--	--	--	--	--	3,809
Leota, MS.....	514	L	--	--	--	--	--	--	--	7,571
Island 86, AR.....	520	R	--	--	--	--	--	--	--	18,477
Seven Oaks, AR.....	523	R	--	--	--	--	--	--	--	5,829
Walnut Point, MS.....	525	L	--	--	--	--	--	--	--	7,005
Anconia Chute, AR.....	527	R	--	--	--	--	--	--	--	7,159
Refuge, MS.....	528	L	--	--	--	--	--	--	--	19,695
Island 84, AR.....	532	L	--	--	--	--	--	--	--	12,475
Vaucluse, AR.....	533	R	--	--	--	--	--	--	--	7,114
Warfield Point, AR.....	535	L	--	--	--	--	--	--	--	2,020
Leland Bar, AR-MS.....	538	R	--	--	--	--	--	--	--	15,086
Leland Neck, AR-MS.....	540	L	--	--	--	--	--	--	--	4,315
Tarpley Cutoff, MS-AR.....	540	R	--	--	--	--	--	--	--	10,478
Island 82-Miller Bend, AR-MS.....	544	R&L	--	--	--	--	--	--	--	13,646
Ashbrook-Miller Bend, AR-MS.....	547	L&R	--	--	--	--	--	--	--	13,015
Ashbrook Cutoff, MS.....	549	L	--	--	--	--	--	--	--	8,728
Chicot Ldg., AR.....	564	R	--	--	--	--	--	--	--	22,381
Catfish Point, MS.....	571	L	--	--	--	--	--	--	--	5,290
Below Prentiss, MS.....	580	L	--	--	--	--	--	--	--	12,413
Above Ozark, AR-MS.....	580	R	--	--	--	--	--	--	--	5,545
Malone Field, AR.....	585	R	--	--	--	--	--	--	--	7,549

**TABLE 41-I**  
**(Continued)**

**BANK REVETMENTS AND DIKES: VICKSBURG DISTRICT**  
**(FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY						Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			Construction							
			New Work			Reinforcement		Maintenance (Squares) <sup>1</sup>		
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>			
			(2)			(3)				
Dikes:										
Terrene, MS.....	590	L	--	--	--	--	--	--	--	11,025
White River Landing, AR.....	591	R	--	--	--	--	--	--	--	2,201
Montgomery Towhead, AR .....	592	R	--	--	--	--	--	--	--	8,647
Victoria Bend, AR .....	596	R	2,392	--	--	--	--	--	--	6,736
Smith Point, MS .....	600	L	--	--	--	--	--	--	--	7,617
Island 70, MS .....	608	L	--	--	--	--	--	--	--	26,355
Total Dikes, Vicksburg District, Mississippi River.....			3,743 (0.71 Miles)	--	--	--	--	--	--	632,478 (119.79 Miles)
	Miles Above Mouth									
ARKANSAS RIVER <sup>4</sup>										
Standard Revetment:										
Menard Bend, AR.....	31	L	--	--	--	--	--	--	--	11,770
Como, AR.....	34	R	--	--	--	--	--	--	--	11,720
Morgan Bend, AR .....	36	L	--	--	--	--	--	--	--	5,250
Yancopin, AR .....	24	R	--	--	--	--	--	--	--	2,800
Total Standard Revetment, Arkansas River .....			--	--	--	--	--	--	--	31,540 (5.97 Miles)
			(2)			(3)				
Dikes:										
Hopedale Cutoff, AR.....	30	R	--	--	--	--	--	--	--	1,848
Morgan Bend, AR .....	36	L	--	--	--	--	--	--	--	3,658

TABLE 41-I  
(Continued)BANK REVETMENTS AND DIKES: VICKSBURG DISTRICT  
(FISCAL YEAR 2004)

Location	Above Conflu- ence with Miss. River (Miles)	Bank R or L	Operations This FY Construction						Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)	
			New Work			Reinforcement					
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>	<u>Maintenance</u> (Squares) <sup>1</sup>			
			(2)			(3)					
Dikes:											
Fletcher Bend, AR .....	39	R	--	--	--	--	--	--	--	2,187	
Total Dikes, Arkansas River.....			--	--	--	--	--	--	--	7,693 (1.46 Miles)	
RED RIVER <sup>4</sup>											
Standard Revetment:											
Dupre, LA .....	69	R	--	--	--	--	--	--	--	2,690	
Bringol, LA .....	73	R	--	--	--	--	--	--	--	4,000	
Egg Bend, LA .....	75	R	--	--	--	--	--	--	--	2,400	
Colonel Bend, LA .....	77	R	--	--	--	--	--	--	--	650	
Roxana, LA .....	83	R	--	--	--	--	--	--	--	3,325	
Ryland, LA .....	88	R	--	--	--	--	--	--	--	3,925	
Whittington, LA .....	89	R	--	--	--	--	--	--	--	2,900	
Smith, LA.....	91	R	--	--	--	--	--	--	--	2,700	
Latanier, LA .....	93	R	--	--	--	--	--	--	--	2,460	
Hudson, LA .....	99	R	--	--	--	--	--	--	--	1,458	
Robert, LA .....	102	R	--	--	--	--	--	--	--	5,500	
Alexandria Front, LA .....	105	R	--	--	--	--	--	--	--	5,280	
Callahan, LA .....	110	R	--	--	--	--	--	--	--	4,000	
Cotton, LA .....	116	R	--	--	--	--	--	--	--	14,700	
Rapides, LA .....	119	R	--	--	--	--	--	--	--	1,030	
Boyce, LA .....	125	R	--	--	--	--	--	--	--	4,548	
Total Standard Revetment, Red River .....			--	--	--	--	--	--	--	61,566 (11.66 Miles)	

## BANK REVETMENTS AND DIKES: VICKSBURG DISTRICT (FISCAL YEAR 2004)

Location	Above Confluence with Miss. River (Miles)	Bank  R or L	Operations This FY Construction						Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			New Work							
			Extension (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	Reinforcement		<u>Maintenance</u> (Squares) <sup>1</sup>		
						(Linear Feet)	(Squares) <sup>1</sup>			
Dikes: <sup>6</sup>					(2)			(3)		
Choctaw Bayou Bend, LA.....	71	R	--	--	--	--	--	--	--	2,000
Bringol (Egg Bend), LA.....	73	R	--	--	--	--	--	--	--	2,477
Egg Bend, LA .....	75	R	--	--	--	--	--	--	--	900
Cologne Bend, LA .....	77	R	--	--	--	--	--	--	--	1,850
Echo, LA .....	78	R	--	--	--	--	--	--	--	1,900
Richardson, LA .....	79	R	--	--	--	--	--	--	--	2,700
Alexandria, LA.....	105	R	--	--	--	--	--	--	--	--
Bertrand, LA .....	122	R	--	--	--	--	--	--	--	7,630
Dismal Swamp, LA.....	24	L	--	--	--	--	--	--	--	1,411
Total Dikes, Red River.....			--	--	--	--	--	--	--	20,868 (3.95 Miles)

1. Gross squares articulated concrete mattress (100 square feet).
2. Linear feet of dike which were raised.
3. Linear feet of dike on which repairs were made.
4. See report on Arkansas River and tributaries, AR and OK, under Little Rock District.
5. Mileages based on 1967 hydrographic survey.
6. Includes all types of dikes and retards.
7. Stone paving only.

TABLE 41-J

BANK REVETMENTS AND DIKES: MEMPHIS DISTRICT  
(FISCAL YEAR 2004)

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY Construction						Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			New Work			Reinforcement		Maintenance (Squares) <sup>1</sup>		
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>			
MISSISSIPPI RIVER										
Standard Revetment:										
Big Island, AR.....	598	R	--	--	--	--	--	--	--	5,935
Scrubgrass Bend, AR.....	600	R	--	--	--	--	--	--	--	7,315
Henrico, AR .....	606	R	--	--	--	--	--	--	--	33,310
Cessions Towhead, AR.....	615	L	--	--	--	--	--	--	--	11,465
Island 67, MS .....	621	L	--	--	--	--	--	--	--	9,630
Island 68 Bar—										
Knowlton, AR .....	622	R	--	--	--	--	--	--	--	26,710
Ludlow, AR .....	626	R	--	--	--	--	--	--	--	10,390
Chute of island 64, AR-MS .....	628	R	--	--	--	--	--	--	--	4,180 <sup>7,9</sup>
Rescue Land, AR-MS.....	629	L	--	--	--	--	--	--	--	27,020
Fair Landing, AR.....	632	R	--	--	--	--	--	--	--	27,515
Burke Landing, MS.....	637	L	--	--	--	--	--	--	--	19,070
Island 62, AR.....	638	R	--	--	--	--	--	--	--	9,030
Island 63, MS .....	639	L	--	--	--	--	--	--	--	11,514
Island 63 Bar, MS.....	639	L	--	--	--	--	--	--	--	3,795
Oldtown Bend, AR .....	644	R	1,560	--	6,894	--	--	--	--	28,420
Horseshoe, MS .....	647	L	--	--	--	--	--	--	--	16,385
Westover, AR.....	650	R	--	--	--	--	--	--	--	15,640
Delta-Friars Point, MS .....	665	L	--	--	--	--	--	--	--	30,090
Helena, AR .....	660	R	--	--	--	--	--	--	--	36,460
Helena Towhead, AR.....	664	R	--	--	--	--	--	--	--	3,690
Trotters Landing, MS .....	665	L	--	--	--	--	--	--	--	38,685
Flower Lake, MS.....	667	L	--	--	--	--	--	--	--	16,385
St. Francis, AR .....	672	R	--	--	--	--	--	--	--	24,663
Harbert Point, MS .....	675	L	--	--	--	--	--	--	--	9,065
Walnut Bend, AR.....	680	R	--	--	--	--	--	--	--	31,070
Mhoon Bend, MS .....	685	L	--	--	--	--	--	--	--	46,340
Peters, AR.....	692	R	--	--	--	--	--	--	--	33,760
Commerce, MS .....	695	L	--	--	--	--	--	--	--	29,085



**TABLE 41-J**  
**(Continued)**

**BANK REVETMENTS AND DIKES: MEMPHIS DISTRICT**  
**(FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY					Maintenance (Squares) <sup>1</sup>	Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			Construction							
			New Work		Reinforcement					
Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>						
Standard Revetment:										
Porter Lake, AR.....	700	R	--	--	--	--	--	6,381	--	34,155
Pickett, MS-AR.....	703	R	--	--	--	--	--	--	--	12,575
Seyppel, AR.....	709	R	--	--	--	--	--	--	--	4,830
Norfolk-Star, MS.....	711	L	--	--	--	--	--	9,459	--	39,505
Cow Island Bend, AR.....	714	R	--	--	--	--	--	--	--	22,274
Cow Island Bend (Upper), TN.....	716	R	--	--	--	--	--	--	--	8,623
Coahoma, TN.....	717	L	--	--	--	--	--	--	--	9,270
Ensley, TN.....	723	L	--	--	--	--	--	--	--	46,256
Dismal Point, AR.....	724	R	--	--	--	--	--	--	--	7,200
Bauxippi-Wyanoke, AR.....	730	R	--	--	--	--	--	--	--	24,530
Presidents Island, TN.....	733	L	--	--	--	--	--	--	--	12,755
Hopefield Point, AR-TN.....	736	R	--	--	--	--	--	--	--	10,360
Loosahatchie-Memphis, TN.....	737	L	--	--	--	--	--	--	--	31,293
Loosahatchie Bar, TN.....	740	R	--	--	--	--	--	--	--	2,070
St. Clair, AR.....	742	R	--	--	--	--	--	--	--	2,930
Island 40, TN-AR.....	744	R	--	--	--	--	--	--	--	30,750
Brandywine, AR-TN.....	750	R	--	--	--	--	--	--	--	18,010
Shelby Forest, TN.....	753	L	--	--	--	--	--	--	--	9,545
Dean Island, AR.....	756	R	--	--	--	--	--	--	--	7,555
Cedar Point-Densford, TN.....	759	L	--	--	--	--	--	--	--	20,190
Chute of Island 35, TN.....	764	R	--	--	--	--	--	--	--	30,930
Richardson Ldg, TN.....	769	L	--	--	--	--	--	--	--	1,415
Lookout Bar, TN.....	772	R	--	--	--	--	--	--	--	2,990
Lookout, TN.....	774	R	--	--	--	--	--	--	--	5,005
Sunrise Towhead, TN.....	776	R	--	--	--	--	--	--	--	18,440
Driver Bar, TN.....	780	L	2,510	130	7,957	--	--	--	--	7,360

**TABLE 41-J**  
**(Continued)**

**BANK REVETMENTS AND DIKES: MEMPHIS DISTRICT**  
**(FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY Construction					<u>Maintenance</u> (Squares) <sup>1</sup>	Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			New Work			Reinforcement				
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>			
Standard Revetment:										
Lower Bullerton, AR .....	782	R	--	--	--	--	--	--	--	28,350
Kate Aubrey Towhead- Island 30, TN.....	786	R	--	--	--	--	--	--	--	30,808
Osceola, AR .....	786	R	--	--	--	--	--	--	--	1,350 <sup>3</sup>
Osceola, AR .....	786	R	--	--	--	--	--	--	--	5,823
Ashport-Keyes Point, TN .....	791	L	--	--	--	--	--	--	--	44,232
Kate Aubrey, TN .....	793	R	--	--	--	--	--	--	--	2,500
Island 26, TN.....	798	R	--	--	--	--	--	--	--	15,690
Bend of Island 25, TN .....	803	L	--	--	--	--	--	--	--	32,385
Barfield, AR .....	808	R	--	--	--	--	--	--	--	52,335
Obion-Tamm, TN.....	819	L	--	--	--	--	--	--	--	53,831
Huffman-Hickman, AR-TN.....	826	R	--	--	--	--	--	--	--	29,764
Heloise, TN .....	831	L	--	--	--	--	--	--	--	15,770
Island 18, MO .....	836	R	--	--	--	--	--	--	--	30,490
Linwood Bend, TN.....	841	L	--	--	--	--	--	--	--	14,850
Blaker Towhead, TN .....	845	L	--	--	--	--	--	--	--	18,562
Bells Point, MO.....	845	R	--	--	--	--	--	--	--	5,420
Gayoso-Caruthersville, MO .....	848	R	--	--	--	--	--	--	--	25,600
Island 15, TN.....	851	L	--	--	--	--	--	--	--	3,630
Hathaway Landing, TN .....	852	L	--	--	--	--	--	--	--	1,000
Robinson Bayou, MO.....	852	R	--	--	--	--	--	--	--	22,630
Fritz Landing, TN.....	857	L	--	--	--	--	--	--	--	15,670
Lee Towhead, MO.....	859	L	--	--	--	--	--	--	--	9,640
Bend of Island 14, TN .....	859	L	--	--	--	--	--	--	--	15,830
Above Lee Towhead, TN.....	861	L	--	--	--	--	--	--	--	4,943
Little Cypress, MO.....	864	R	--	--	--	--	--	--	--	40,140

**TABLE 41-J**  
**(Continued)**

**BANK REVETMENTS AND DIKES: MEMPHIS DISTRICT**  
**(FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY						Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			Construction							
			New Work			Reinforcement				
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>	Maintenance (Squares) <sup>1</sup>		
Standard Revetment:										
Merriwether-Cherokee, TN .....	869	L	--	--	--	--	--	--	--	41,058
Linda, MO .....	876	R	--	--	--	--	--	--	--	20,000
Below Toney’s Towhead, TN .....	879	L	--	--	--	--	--	--	--	20,895
Toney’s Towhead, KY-TN .....	882	L	--	--	--	--	--	--	--	13,640
Kentucky Point, KY .....	887	L	--	--	--	--	--	--	--	7,960
New Madrid Bar, KY .....	888	R	--	--	--	--	--	10,984	--	16,825
New Madrid Bend, MO .....	889	R	--	--	--	--	--	--	--	43,262
La Forge, MO .....	892	R	--	--	--	--	--	--	--	24,930
Slough Landing Neck, TN-KY .....	899	L	--	--	--	--	--	--	--	37,520
Winchester Towhead, MO .....	900	R	--	--	--	--	--	--	--	5,540
Island 9, KY-TN .....	905	L	--	--	--	--	--	--	--	33,585
Milton Bell, MO .....	908	R	--	--	--	--	--	15,847	--	16,600
Chute of Island 8, KY .....	913	L	--	--	--	--	--	--	--	12,620
Bend of Island 8, MO .....	914	R	--	--	--	--	--	--	--	39,945
Island 8, KY .....	914	R	--	--	--	--	--	--	--	18,515
Hickman-Reelfoot, KY .....	919	L	--	--	--	--	--	--	--	46,399
Hickman Bar, KY .....	921	L	--	--	--	--	--	--	--	1,940
Beckwith Bend, MO .....	924	R	1,952	160	5,397	--	--	--	--	20,155
Williams, KY .....	927	L	--	--	--	--	--	--	--	10,015
Wolf Island, KY .....	934	R	--	--	--	--	--	7,468	--	22,495
Columbus, KY .....	937	L	--	--	--	--	--	--	--	7,395
Belmont, MO .....	938	R	--	--	--	--	--	--	--	5,785
Island 3 and 4, KY .....	940	R	--	--	--	--	--	--	--	19,970
Campbell, KY .....	943	L	--	--	--	--	--	--	--	6,865
Pritchard, MO .....	948	R	--	--	--	--	--	--	--	15,045

TABLE 41-J  
(Continued)BANK REVETMENTS AND DIKES: MEMPHIS DISTRICT  
(FISCAL YEAR 2004)

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY Construction						Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			New Work			Reinforcement		Maintenance (Squares) <sup>1</sup>		
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>			
Standard Revetment:										
Mayfield Creek, KY .....	949	L	--	--	--	--	--	--	--	8,935
Wickliffe, KY .....	953	L	--	--	--	--	--	--	--	16,150
Cache-Cairo, IL (Ohio River) .....	958	R	--	--	--	--	--	--	--	29,927
<hr/>										
Total Revetment, Memphis District, Mississippi River.....			6,022 (1.14 Miles)	290	20,248	--	--	50,139	--	2,072,647 (392.55 Miles)
<hr/>										
Dikes:										
Big Island, AR.....	600	R	--	--	( <sup>8</sup> )	--	--	( <sup>6</sup> )	--	4,105
Henrico, AR .....	603	R	--	--	--	--	--	--	--	9,080
Below Knowlton, AR.....	616	R	--	--	--	--	--	--	--	21,810
Island 67, MS .....	621	L	--	--	--	--	--	--	--	4,320
Below Ludlow, AR.....	624	R	--	--	--	--	--	--	--	5,040
Sunflower, AR.....	627	L	--	--	--	--	--	--	--	5,520
Island 64, AR.....	630	R	--	--	--	--	--	--	--	7,330
Rescue Landing, MS .....	631	L	--	--	--	--	--	--	--	2,530
Island 62, AR.....	638	R	--	--	--	--	--	--	--	23,180
Island 63 Bar, MS.....	639	L	--	--	--	--	--	--	--	2,600
Island 63, MS .....	640	L	--	--	--	--	--	--	--	5,640
Kangaroo Point, AR .....	649	R	--	--	--	--	--	--	--	6,580
Friars Point, MS .....	652	L	--	--	--	--	--	--	--	6,870
Montezuma Bar, MS .....	657	L	--	--	--	--	--	--	--	17,970
Montezuma Towhead, AR.....	656	R	--	--	--	--	--	--	--	6,700
Prairie Point, AR .....	668	R	--	--	--	--	--	--	--	10,391
Flower Lake, MS.....	668	L	--	--	--	--	--	--	--	11,060
Walnut Bend, AR.....	681	R	--	--	--	--	--	--	--	6,390
St. Francis Towhead, MS.....	671	L	--	--	--	--	--	--	--	3,380

**TABLE 41-J**  
**(Continued)**

**BANK REVETMENTS AND DIKES: MEMPHIS DISTRICT**  
**(FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY Construction					Maintenance (Squares) <sup>1</sup>	Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			New Work			Reinforcement				
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>			
Dikes:					( <sup>8</sup> )			( <sup>6</sup> )		
Below Walnut Bend, AR .....	676	R	--	--	--	--	--	--	--	8,340 <sup>2</sup>
Bordeaux Point, MS .....	681	L	--	--	--	--	--	--	--	10,730
Peters, AR.....	693	R	--	--	--	--	--	600	--	7,830
Commerce, MS .....	694	L	--	--	--	--	--	--	--	10,745
Basket Bar, AR.....	696	R	530	--	700	--	--	--	--	6,340
Buck Island, MS.....	700	L	--	--	--	--	--	--	--	4,705
Porter Lake, AR.....	701	R	--	--	1,250	--	--	--	--	23,115
Pickett, MS.....	704	L	--	--	--	--	--	--	--	10,080
Seyppel, AR .....	706	R	--	--	--	--	--	--	--	16,230
Cat Island, AR.....	710	R	--	--	--	--	--	--	--	16,355
Coahoma, TN .....	718	L	--	--	--	--	--	--	--	4,640
Armstrong, AR-TN .....	720	R	--	--	--	--	--	--	--	21,240
Below Ensley, TN .....	721	L	--	--	--	--	--	--	--	915
Dismal Point, AR .....	724	R	--	--	--	--	--	--	--	30,950
Engineers Bar, AR.....	734	R	--	--	--	--	--	--	--	4,155
Hopefield Point, AR.....	736	R	--	--	--	--	--	--	--	5,350
Memphis Front, TN.....	736	L	--	--	--	--	--	--	--	6,300
Robinson Crusoe, TN.....	738	R	--	--	--	--	--	--	--	21,939
Loosahatchie Bar, TN.....	739	R	--	--	--	--	--	--	--	3,950
Sycamore Chute, AR-TN .....	741	R	--	--	--	--	--	--	--	6,725
Above Loosahatchie, TN.....	742	L	--	--	--	--	--	400	--	12,295
Redman Point, AR.....	743	R	--	--	--	--	--	--	--	7,750
Randolph Point, TN.....	747	L	--	--	--	--	--	--	--	16,940
Poker Point, AR.....	748	R	--	--	--	--	--	--	--	8,060
Shelby Forest, TN .....	751	L	--	--	--	--	--	--	--	5,540
Corona Bar, TN-AR .....	755	R	--	--	--	--	--	1,300	--	9,400
Densford, TN.....	757	L	--	--	--	--	--	60	--	7,780
Cedar Point, TN .....	759	L	--	--	--	--	--	--	--	2,890
Below Richardson Landing, TN.....	767	L	--	--	--	--	--	--	--	5,950

**TABLE 41-J**  
**(Continued)**

**BANK REVETMENTS AND DIKES: MEMPHIS DISTRICT**  
**(FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY Construction					Maintenance (Squares) <sup>1</sup>	Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			New Work			Reinforcement				
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>			
Dikes:					( <sup>8</sup> )			( <sup>6</sup> )		
Lookout, TN-AR .....	771	R	--	--	--	--	--	--	--	16,665
Hatchie Towhead, TN.....	773	L	--	--	--	--	--	--	--	3,300
Plum Point, TN.....	784	L	--	--	--	--	--	--	--	10,195
Lake Neark, AR.....	786	R	--	--	--	--	--	--	--	2,545
Island 30.....	787	R	--	--	--	--	--	--	--	5,485
Kate Aubrey, TN .....	791	R	--	--	--	--	--	--	--	12,260
Keyes Point, TN .....	791	L	--	--	--	--	--	--	--	31,210
Ashport-Goldust, TN-AR.....	795	R	--	--	--	--	--	--	--	17,330
Forked Deer, TN.....	798	L	990	--	--	--	--	--	--	9,540
Island 25, AR.....	804	R	--	--	--	--	--	--	--	5,450
Nebraska Point, TN.....	808	L	--	--	--	--	--	--	--	12,149
Below Tamm Bend, TN.....	813	L	--	--	--	--	--	--	--	8,300
Wrights Point, AR .....	820	R	--	--	--	--	--	--	--	34,775
Island 21, Chute, TN .....	824	L	--	--	--	--	--	--	--	3,170
Head of Island 21, TN .....	828	L	--	--	--	--	--	--	--	15,540
Island 20, MO-TN .....	831	R	--	--	--	--	--	--	--	21,969
Island 18, TN.....	837	L	--	--	--	--	--	--	--	8,670
Tennemo, TN.....	842	L	--	--	--	--	--	--	--	8,240
Blaker Towhead, TN .....	843	L	--	--	--	--	--	--	--	4,080
Caruthersville-Linwood Bend, MO.....	844	R	--	--	--	--	--	200	--	30,590
Opposite Carthersville, TN.....	846	L	--	--	--	--	--	--	--	3,300
Sandy Hook, TN.....	850	R	--	--	--	--	--	--	--	2,350
Island 15, TN.....	851	L	--	--	--	--	--	--	--	8,830
Robinson Bayou, MO.....	853	R	--	--	--	--	--	--	--	10,768
Hathaway, TN .....	854	L	--	--	--	--	--	300	--	27,355
Island 15 Neck, TN .....	854	L	--	--	--	--	--	--	--	21,100
Above Lee Towhead, TN.....	859	L	--	--	--	--	--	--	--	1,300
Below Cherokee, TN.....	866	L	--	--	--	--	--	--	--	6,230
Stewart Towhead, MO.....	871	R	--	--	--	--	--	--	--	19,440
Driver Bar, AR .....	780	L	6,360	--	--	--	--	--	--	6,360

**TABLE 41-J**  
**(Continued)**

**BANK REVETMENTS AND DIKES: MEMPHIS DISTRICT**  
**(FISCAL YEAR 2004)**

Location	Above Head of Passes (Miles)	Bank R or L	Operations This FY Construction					<u>Maintenance</u> (Squares) <sup>1</sup>	Non- Operative Since Prior FY (Linear Feet)	Operative Thru This FY (Linear Feet)
			New Work			Reinforcement				
			Exten- sion (Linear Feet)	Lap (Linear Feet)	(Squares) <sup>1</sup>	(Linear Feet)	(Squares) <sup>1</sup>			
Dikes:					( <sup>8</sup> )			( <sup>6</sup> )		
Ruddles Point, MO.....	874	R	--	--	--	--	--	--	--	8,130
Island 11, MO.....	882	R	--	--	--	--	--	--	--	14,330
New Madrid Bend, MO.....	887	R	--	--	--	--	--	100	--	1,715
Kentucky Point, KY .....	887	L	--	--	--	--	--	--	--	15,610
Morrison Towhead, MO .....	890	R	--	--	--	--	--	--	--	1,070
Hotchkiss Bend, MO.....	895	R	--	--	--	--	--	--	--	14,208
Slough Landing, KY .....	896	L	--	--	--	--	--	--	--	5,065
Below Island 9, TN .....	901	L	--	--	7,600	--	--	--	--	21,989
Donaldson Point, MO.....	905	R	1,300	--	4,750	--	--	--	--	24,275
Island 9, KY .....	906	L	--	--	--	--	--	--	--	7,010 <sup>5</sup>
Island 7 - Island 8, MO-KY.....	917	R	--	--	--	--	--	--	--	15,345
Below Williams, KY .....	925	L	--	--	--	--	--	--	--	3,640
Moore Island, KY-MO .....	929	R	--	--	--	--	--	1,000	--	7,925
Above Williams, KY .....	930	L	--	--	--	--	--	600	--	1,150
Wolf Island Bar, KY.....	933	L	--	--	--	--	--	300	--	12,260
Campbell, KY .....	942	L	--	--	--	--	--	--	--	2,610
Pritchard, MO.....	944	R	--	--	--	--	--	--	--	9,390
Island 1, KY .....	948	L	720	--	--	--	--	--	--	18,545
Total Dikes										
Memphis District,										
Mississippi River.....			9,900	--	14,300	--	--	4,860	--	1,010,498 (191.38 Miles)

1. Gross squares articulated concrete mattress (100 square feet).
2. Changed to correct previous errors.
3. Lumber mattress revetment.
4. Rock Groins.
5. Linear feet of triangular frame retards and pile dikes.
6. Linear feet of dike on which repairs were made.
7. Stone paving only.
8. Linear feet of dike which were raised.
9. ACM placed at location previously reported as stone paving only. No new length.

TABLE 41-K

**PROJECT LEVEES: NEW ORLEANS DISTRICT  
(FISCAL YEAR 2004)**

Location	Levees and Floodwalls (Miles)					Berm <sup>1</sup> (Miles)				Surfaced Roads on Levees (Miles)				
	Built to Approved Grade and Section													
	Authorized for System	Total in Place	This FY	Total Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Com- plete Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Total Com- plete Thru This FY	Cur- rently Under Con- struction	
		This FY		Total Com- plete Thru This FY										
MAIN STEM LEVEES														
Mississippi River Levees														
Fifth Louisiana Levee District .....	(16.8)	(13.3)	--	(13.3)	--	--	--	--	--	(15.5)	--	(15.5)	--	
Levees.....	15.5	12.0	--	12.0	--	--	--	--	--	15.5	--	15.5	--	
Old River structures and levees .....	1.3	1.3	--	1.3	--	--	--	--	--	--	--	--	--	
Atchafalaya Basin Levee District .....	(126.3)	(122.7)	--	(122.7)	--	(1.0)	--	(1.0)	--	(118.7)	--	(118.7)	--	
Levees.....	118.7	115.1	--	115.1	--	1.0	--	1.0	--	118.7	--	118.7	--	
Morganza structure and levee.....	0.8	0.8	--	0.8	--	--	--	--	--	--	--	--	--	
Morganza forebay levee .....	6.7	6.7	--	6.7	--	--	--	--	--	--	--	--	--	
Port Allen lock.....	0.1	0.1	--	0.1	--	--	--	--	--	--	--	--	--	
Lafourche Basin Levee District Levees.....	61.7	61.7	--	61.7	--	0.1	--	0.1	--	61.7	--	61.7	--	
Plaquemines West Levee District Levees.....	37.9	37.9	--	37.9 <sup>2</sup>	--	--	--	--	--	37.9	--	37.9	--	
Buras Levee District.....	(34.1)	(34.1)	--	(34.1)	--	--	--	--	--	(34.0)	--	(34.0)	--	
Levees.....	34.0	34.0	--	34.0 <sup>2</sup>	--	--	--	--	--	34.0	--	34.0	--	
Empire lock .....	0.1	0.1	--	0.1	--	--	--	--	--	--	--	--	--	
Baton Rouge front levees .....	2.1	1.9	--	1.9	0.2	--	--	--	--	2.1	--	2.1	--	
Pontchartrain Levee District .....	(124.9)	(124.9)	--	(124.9)	--	(0.1)	--	--	--	(110.8)	--	(110.8)	--	
Levees.....	110.8	110.8	--	110.8	--	0.1	--	--	--	110.8	--	110.8	--	
Bonnet Carre' guide levees .....	11.3	11.3	--	11.3	--	--	--	--	--	--	--	--	--	
Bonnet Carre' forebay levee.....	1.3	1.3	--	1.3	--	--	--	--	--	--	--	--	--	
Bonnet Carre' structure .....	1.5	1.5	--	1.5	--	--	--	--	--	--	--	--	--	
East Jefferson Levee District Levees.....	11.6	11.6	--	10.8	--	--	--	--	--	11.6	--	11.6	--	
West Jefferson Levee District Levees.....	(20.0)	(20.0)	--	(20.0)	--	--	--	--	--	(19.9)	--	(19.9)	--	
Floodwalls .....	0.1	0.1	--	0.1	--	--	--	--	--	0.1	--	0.1	--	
Harvey Canal Lock .....	0.1	0.1	--	0.1	--	--	--	--	--	--	--	--	--	



**TABLE 41-K**  
**(Continued)**

**PROJECT LEVEES: NEW ORLEANS DISTRICT**  
**(FISCAL YEAR 2004)**

Location	Levees and Floodwalls (Miles)					Berm <sup>1</sup> (Miles)	Surfaced Roads on Levees (Miles)											
	Built to Approved Grade and Section						In System When Com- pleted	Built This FY	Com- plete Thru This FY	Cur- rently Under Con- struction	Total Com- plete Thru This FY							
	Authorized for System	Total in Place This FY	This FY	Total Thru This FY	Cur- rently Under Con- struction						In System When Com- pleted	Built This FY	Com- plete Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Total Com- plete Thru This FY	Cur- rently Under Con- struction
Orleans Levee District.....	(27.2)	(27.2)	--	(24.9)	--	--	--	--	--	(18.4)	--	(18.4)	--					
Left descending, east bank .....	(13.3)	(11.0)	--	(11.0)	--	--	--	--	--	(4.6)	--	(4.6)	--					
Levees .....	4.6	4.6	--	2.3	--	--	--	--	--	4.6	--	4.6	--					
Floodwalls .....	8.6	8.6	--	8.6	--	--	--	--	--	--	--	--	--					
IHNC lock .....	0.1	0.1	--	0.1	--	--	--	--	--	--	--	--	--					
Right descending, west bank .....	(13.9)	(13.9)	--	(13.9)	--	--	--	--	--	(13.8)	--	(13.8)	--					
Levees .....	13.8	13.8	--	13.8	--	--	--	--	--	13.8	--	13.8	--					
Algiers Canal lock .....	0.1	0.1	--	0.1	--	--	--	--	--	--	--	--	--					
Lake Borgne Basin Levee																		
District Levees.....	11.6	11.6	--	11.6	--	--	--	--	--	11.6	--	11.6	--					
Grand Prairie Levee District																		
Levees .....	<u>37.4</u>	<u>37.4</u>	--	<u>37.4</u>	--	--	--	--	--	<u>37.4</u>	--	<u>37.4</u>	--					
Total Mississippi River.....	511.6	501.2	--	501.2	0.2	1.2	--	1.1	--	479.6	--	479.6	--					
Other Levees Included in Main Stem																		
Louisiana State Pen Levee .....	12.1	12.1	0	12.1	--	--	--	--	--	--	--	--	--					
Atchafalaya Basin																		
Atchafalaya River and																		
Bayou des Glaises .....	(148.4)	(148.4)	--	(139.0)	--	--	--	--	--	(148.4)	--	(148.4)	--					
East Bank Atchafalaya River.....	52.5	52.5	--	52.5	--	--	--	--	--	52.5	--	52.5	--					
Bayou des Glaises .....	7.9	7.9	--	7.9	--	--	--	--	--	7.9	--	7.9	--					
West bank Atchafalaya River .....	60.1	60.1	--	53.0	--	--	--	--	--	60.1	--	60.1	--					
Simmesport Ring .....	1.6	1.6	--	1.6	--	--	--	--	--	1.6	--	1.6	--					
Melville Ring .....	4.1	4.1	--	1.8	--	--	--	--	--	4.1	--	4.1	--					
Krotz Springs Ring .....	1.7	1.7	--	1.7	--	--	--	--	--	1.7	--	1.7	--					
Mansura Hills to Hamburg .....	20.5	20.5	--	20.5	--	--	--	--	--	20.5	--	20.5	--					
West protection levee, Hamburg																		
to Berwick drainage canal via																		
Calumet.....	128.7	128.7	--	110.9	5.9	--	--	--	--	128.7	--	128.4	--					
Levees west of Berwick, Berwick																		
drainage canal to Charenton																		
drainage canal .....	56.5	56.5	4.0	40.0	0	--	--	--	--	56.5	--	56.5	--					
Morganza upper guide levee .....	8.9	8.9	--	8.9	--	--	--	--	--	8.9	--	8.9	--					

TABLE 41-K  
(Continued)PROJECT LEVEES: NEW ORLEANS DISTRICT  
(FISCAL YEAR 2004)

Location	Levees and Floodwalls (Miles)					Berm <sup>1</sup> (Miles)				Surfaced Roads on Levees (Miles)			
	Built to Approved Grade and Section												
	Authorized for System	Total in Place This FY	This FY	Total Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Com- plete Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Total Com- plete Thru This FY	Cur- rently Under Con- struction
East Protection levee, Morganza to Cutoff Bayou, including 19.5 miles of Morganza lower guide levee.....	106.7	106.7	--	95.7	2.0	--	--	--	--	105.0	--	86.0	--
Total Atchafalaya Basin .....	449.2	449.2	4.0	394.5	11.9	--	--	--	--	447.5	--	428.2	--
Total Other Levees Included in Main Stem .....	461.3	461.3	11.8	407.5	11.9	--	--	--	--	447.5	--	428.2	--
Total-Main Stem Leaves .....	972.9	972.9	11.8	902.4	11.9	1.2	--	1.1	--	927.1	--	907.8	--
TRIBUTARY LEVEES IN MR&T PROJECT													
Lake Ponchartrain, LA .....	(17.4)	(17.4)	--	(17.4)	--	--	--	--	--	(17.4)	--	(17.4)	--
Item A levees .....	5.0	5.0	--	5.0	--	--	--	--	--	5.0	--	5.0	--
Item B levees .....	10.1	10.1	--	10.1	--	--	--	--	--	10.1	--	10.1	--
Item C levees .....	2.3	2.3	--	2.3	--	--	--	--	--	2.3	--	2.3	--
Total Tributary Levees in MR&T Project.....	17.4	17.4	--	17.4	--	--	--	--	--	17.4	--	17.4	--
GRAND TOTAL	990.3	990.3	11.8	919.8	11.9	1.2	--	1.1	--	944.5	--	925.2	--

1. Landside seepage berms only.

2. Changed to correct previous error.

TABLE 41-L

**PROJECT LEVEES: VICKSBURG DISTRICT  
(FISCAL YEAR 2004)**

Location	Levees and Floodwalls (Miles)					Berm <sup>1</sup> (Miles)				Surfaced Roads on Levees (Miles)			
	Built to Approved Grade and Section												
	Authorized for System	Total in Place	This FY	Total Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Com- plete Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Total Com- plete Thru This FY	Cur- rently Under Con- struction
		This FY		Total Thru This FY								Total Com- plete Thru This FY	
MAIN STEM LEVEES													
Mississippi River Levees													
East bank in Mississippi.....	178.3 <sup>4</sup>	178.3	--	116.7	24.4	156.9	--	135.0	--	174.2	--	174.2	24.4
Greenville Harbor dikes .....	7.8	7.8	--	7.8	--	--	--	--	--	2.7	--	2.7	--
West bank in Arkansas .....	75.6	75.6	--	55.0	--	61.3	--	54.3	--	75.4	--	75.4	--
West bank in Louisiana (above Red River) .....	<u>198.7</u>	<u>198.7</u>	--	<u>94.7</u>	<u>17.4</u>	<u>91.0</u>	--	<u>74.9</u>	--	<u>197.8</u>	--	<u>197.8</u>	<u>17.4</u>
Total Mississippi River Levees .....	460.4	460.4	--	274.2	41.8	309.2	--	264.2	--	450.1	--	450.1	41.8
Other Levees Included in Main Stem													
Lower Red River-South Bank													
Red River levees.....	(59.2)	(59.2)	(--)	(59.2)	(--)	(--)	(--)	(--)	(--)	(59.2)	(--)	(59.2)	(--)
Hotwells to Moncla, LA, levees .....	59.2	59.2	--	59.2	--	--	--	--	--	59.2	--	59.2	--
Arkansas River, South Bank .....	<u>85.4</u>	<u>85.4</u>	--	<u>85.4</u>	--	<u>24.7</u>	--	<u>24.7</u>	--	<u>84.1</u>	--	<u>81.1</u>	--
Total Other Levees Included in Main Stem .....	<u>144.6</u>	<u>144.6</u>	--	<u>144.6</u>	--	<u>24.7</u>	--	<u>24.7</u>	--	<u>143.3</u>	--	<u>140.3</u>	--
Total-Main Stem Levees .....	605.0	605.0	13.6	418.8	35.8	333.9	--	288.9	--	593.4	13.6	590.4	35.8
TRIBUTARY LEVEES IN MR&T PROJECT													
Arkansas River, North Bank .....	61.5 <sup>5</sup>	56.2	--	56.2	--	8.3	--	8.3	--	47.4	--	47.4	--
Red River Backwater Levees .....	263.6	246.9 <sup>7</sup>	--	246.9 <sup>7</sup>	--	--	--	--	--	246.9 <sup>7</sup>	--	246.9 <sup>7</sup>	--

TABLE 41-L  
(Continued)PROJECT LEVEES: VICKSBURG DISTRICT  
(FISCAL YEAR 2004)

Location	Levees and Floodwalls (Miles)					Berm <sup>1</sup> (Miles)				Surfaced Roads on Levees (Miles)			
	Built to Approved Grade and Section												
	Authorized for System	Total in Place This FY	This FY	Total Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Com- plete Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Total Com- plete Thru This FY	Cur- rently Under Con- struction
Yazoo River Basin .....	624.1)	(427.4)	(--)	(237.6)	(--)	(--)	(--)	(--)	(--)	(624.1)	(--)	(338.9)	--
Headwater.....	527.5	375.8	--	186.0	--	--	--	--	--	527.5	--	299.9	--
Backwater.....	<u>96.6</u>	<u>51.6</u>	--	<u>51.6</u>	--	--	--	--	--	<u>96.6</u>	--	<u>39.0</u>	--
Total Tributary Levees in MR&T Project.....	<u>949.2</u>	<u>730.5</u>	--	<u>540.7</u>	--	<u>8.3</u>	--	<u>8.3</u>	--	<u>918.4</u>	--	<u>633.2</u>	--
GRAND TOTAL .....	1,554.2	1,335.5	13.6	945.9	35.8	342.2	--	297.2	--	1,511.8	13.6	1,223.6	35.8

1. Landside seepage berms only.

2. Levee that has adequate freeboard based on the refined 1973 MR&amp;T project flood flow line for the Mississippi River. Levees with more than 2 feet of freeboard are considered adequate.

3. Subject to change as planning progresses. Does not include existing berms which need restudy.

4. Includes 1.4 miles of concrete floodwall and 0.3 mile of levee on Vicksburg city front.

5. Includes 5.3 miles for Gillett new levee.

6. Relief wells used in place of berms.

7. Changed to correct previous error.

TABLE 41-M

**PROJECT LEVEES: MEMPHIS DISTRICT  
(FISCAL YEAR 2004)**

Location	Levees and Floodwalls (Miles)					In System When Com- pleted	Berm <sup>5</sup> (Miles)			Surfaced Roads on Levees (Miles)			
	Built to Approved Grade and Section						Built This FY	Com- plete Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Total Com- plete Thru This FY	Cur- rently Under Con- struction
	Authorized for System	Total in Place This FY	This FY	Total Thru This FY	Cur- rently Under Con- struction								
MAIN STEM LEVEES													
Mississippi River													
Mounds, IL .....	3.9	3.9	--	3.9	--	0.5	--	0.5	--	3.6	--	3.6	--
Mound City, IL .....	2.7	2.7	--	2.7	--	2.5	--	2.5	--	1.1	--	1.1	--
Cairo Drainage District, IL .....	13.8 <sup>2</sup>	13.8	--	7.8	--	1.6	--	--	--	8.5	--	8.5	--
City of Cairo, IL .....	6.2	6.2	--	2.2 <sup>4</sup>	--	4.4	--	2.0	--	4.0	--	3.5	--
Little River Drainage District, MO .....	19.3	19.3	--	19.3	--	9.7	--	4.9	--	19.3	--	19.3	--
Levee District No. 2, Scott County, MO .....	13.8	13.8	--	13.8	--	4.8	--	4.8	--	13.8	--	13.8	--
Levee District No. 3, Mississippi County, MO .....	26.0	26.0	--	26.0	--	12.9	--	4.9	--	26.0	--	26.0	--
St. Johns Levee and Drainage District, MO .....	59.0 <sup>3</sup>	58.7	--	58.2	--	9.2	--	--	--	46.9	--	46.1	--
St. Francis Levee District of MO .....	55.7	55.7	--	48.7 <sup>4</sup>	--	23.0	--	12.0	--	55.1	--	55.1	--
City of Hickman, KY .....	1.4	1.4	--	1.4	--	--	--	--	--	0.5	--	--	--
Board of Levee Commissioners Fulton, County, KY .....	16.7	16.7	--	16.7	--	15.1	--	11.4	--	16.3	--	16.3	--
Reelfoot Levee District of Lake and Obion Counties, TN .....	4.5	4.5	--	4.5	--	0.6	--	0.3	--	4.5	--	4.3	--
Madrid Bend Levee District, Lake Co., TN .....	5.2	5.2	--	5.2	--	--	--	--	--	5.2	--	5.2	--
Lake County Levee and Drainage District, TN .....	17.0	17.0	--	17.0	--	9.6	--	9.4	--	17.0	--	17.0	--
Dyer County Levee and Drainage District No. 1, TN .....	21.3	21.3	--	21.3	--	1.3	--	0.4	--	21.3	--	21.3	--
Tipton-Obion levee extension .....	6.5	--	--	--	--	--	--	--	--	6.5	--	--	--
St. Francis Levee District of AR .....	156.7	156.7	--	153.2	--	89.2	--	88.4	--	156.7	--	156.7	--
Helena Improvement District No. 1, AR .....	5.3	5.3	--	5.3	--	2.4	--	2.4	--	4.7	--	4.2	--
Cotton Belt Levee District No. 1, AR .....	23.9	23.9	--	23.9	--	19.4	--	19.4	--	23.9	--	23.9	--

**TABLE 41-M  
(Continued)**

**PROJECT LEVEES: MEMPHIS DISTRICT  
(FISCAL YEAR 2004)**

Location	Levees and Floodwalls (Miles)					Berm <sup>5</sup> (Miles)	Surfaced Roads on Levees (Miles)							
	Built to Approved Grade and Section						In System When Com- pleted	Built This FY	Com- plete Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Total Com- plete Thru This FY	Cur- rently Under Con- struction
	Authorized for System	Total in Place This FY	This FY	Total Thru This FY	Cur- rently Under Con- struction									
Laconia Drainage and Levee District Phillips County, AR.....	20.5	20.5	--	20.5	--	11.5	--	11.5	--	20.5	--	20.5	--	
Laconia Levee District No. 1 of Deshna County, AR.....	18.1	18.1	--	18.1	--	12.6	--	9.2	--	16.5	--	16.5	--	
Laconia Circle Special Drainage District of Deshna County, AR.....	6.6	6.6	--	6.6	--	--	--	--	--	--	--	--	--	
Yazoo-Mississippi Delta Levee District, MS.....	93.6	93.6	--	93.6	--	88.6	--	88.6	--	93.6	--	93.6	--	
Madrid Bend L.D., Fulton Co., KY .	4.8	4.8	--	4.8	--	--	--	--	--	4.8	--	4.8	--	
Birds Point-New Madrid setback levee, MO.....	<u>35.3</u>	<u>35.3</u>	--	<u>35.3</u>	--	<u>23.8</u>	--	<u>--</u>	--	<u>35.3</u>	--	<u>35.3</u>	--	
Total Mississippi River.....	637.8	631.0	--	607.5	--	342.7	--	272.6	--	605.6	--	596.6	--	
TOTAL MAIN STEM LEVEES.....	637.8	631.0	--	607.5	--	342.7	--	272.6	--	605.6	--	596.6	--	
TRIBUTARY LEVEES IN MR&T PROJECT														
St. Francis River.....	(308.2)	(302.9)	--	(302.9)	--	--	--	--	--	(301.0)	--	(133.5)	--	
East bank .....	159.5	156.2	--	156.2	--	--	--	--	--	156.7	--	94.7	--	
West bank .....	148.7	146.7	--	146.7	--	--	--	--	--	144.3	--	38.8	--	
Little River .....	(130.1)	(130.1)	--	(130.1)	--	--	--	--	--	(128.9)	--	(94.5)	--	
East bank (left) .....	40.7	40.7	--	40.7	--	--	--	--	--	40.7	--	40.1	--	
West bank .....	35.1	35.1	--	35.1	--	--	--	--	--	35.1	--	23.7	--	
Elk Chute.....	39.9	39.9	--	39.9	--	--	--	--	--	39.7	--	17.3	--	
West Basin and middle valley.....	14.4	14.4	--	14.4	--	--	--	--	--	13.4	--	13.4	--	
Lower White River .....	(95.6)	(85.9)	--	(84.1)	--	--	--	--	--	(94.0)	(--)	(81.0)	--	
White River backwater levee .....	40.2	40.2	--	40.2	--	--	--	--	--	38.8	--	38.8	--	
Augusta to Clarendon.....	49.2	39.5	--	39.5	--	--	--	--	--	49.2	--	36.2	--	
Clarendon levee .....	6.2	6.2	--	4.4	--	--	--	--	--	6.0	--	6.0	--	

**TABLE 41-M  
(Continued)**

**PROJECT LEVEES: MEMPHIS DISTRICT  
(FISCAL YEAR 2004)**

Location	Levees and Floodwalls (Miles)					Berm <sup>5</sup> (Miles)				Surfaced Roads on Levees (Miles)			
	Built to Approved Grade and Section												
	Authorized for System	Total in Place This FY	This FY	Total Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Com- plete Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Total Com- plete Thru This FY	Cur- rently Under Con- struction
Memphis Harbor .....	10.5	10.5	--	10.5	--	7.0	--	7.0	--	10.5	--	10.5	--
Total Tributary Levees in MR&T Project .....	544.4	529.4	--	527.6	--	7.0	--	7.0	--	534.4	--	319.5	--
GRAND TOTAL .....	1,182.2	1,160.4	--	1,135.0	--	349.7	--	279.6	--	1,140.0	--	916.1	--

1. Subject to change as planning progresses.

2. Includes 5.1 miles of Cache River levee. This levee was enlarged to 1928 grades with Federal funds, but since that time has been classified as a secondary levee.

3. Includes 12.1 miles of Farrenburg levee. This levee was enlarged to 1928 grades with Federal funds, but since that time has been classified as a secondary levee.

4. Deficient in freeboard as a result of 1996 Revised Project Design Flood flowline.

5. Landside seepage berms only.

6. Changed to correct previous error.

TABLE 41-N

**RECAPITULATION  
PROJECT LEVEE TABLES 42-K, -L, AND -M  
(FISCAL YEAR 2004)**

Location	Levees and Floodwalls (Miles)					Cur- rently Under Con- struction	Berm <sup>5</sup> (Miles)			Surfaced Roads on Levees (Miles)				
	Built to Approved Grade and Section				In System When Com- pleted		Built This FY	Com- plete Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Total Com- plete Thru This FY	Cur- rently Under Con- struction	
	Authorized for System	Total in Place This FY	This FY	Total Thru This FY										
MAIN STEM LEVEES														
Mississippi River														
New Orleans District,														
Table 41-K .....	511.6	511.6	--	501.2	--	1.2	--	1.1	--	479.6	--	479.6	--	
Vicksburg District, Table 41-L .....	460.4	460.4	--	274.2	41.8	309.2	--	264.2	--	450.1	--	450.1	41.8	
Memphis District, Table 41-M .....	<u>637.8</u>	<u>631.0</u>	--	<u>607.5</u>	--	<u>342.7</u>	--	<u>272.6</u>	--	<u>605.6</u>	--	<u>596.6</u>	--	
Total Mississippi River.....	1,609.8	1,603.0	--	1,382.9	41.8	653.1	--	537.9	--	1,535.3	--	1,526.3	41.8	
Other Levees Included in Main Stem														
Atchafalaya Basin Floodway--														
NOD .....	449.2	449.2	7.0	395.4	11.9	--	--	--	--	447.5	--	428.2	--	
Louisiana State Pen Levee--														
NOD .....	12.1	12.1	4.8	12.1	--	--	--	--	--	--	--	--	--	
Lower Red River-South Bank--														
VXD .....	59.2	59.2	--	59.2	--	--	--	--	--	59.2	--	59.2	--	
Arkansas River-South Bank--														
VXD .....	<u>85.4</u>	<u>85.4</u>	--	<u>85.4</u>	--	<u>24.7</u>	--	<u>24.7</u>	--	<u>84.1</u>	--	<u>81.1</u>	--	
Total Other Levees Included														
in Main Stem .....	<u>605.9</u>	<u>605.9</u>	--	<u>552.1</u>	<u>11.9</u>	<u>24.7</u>	--	<u>24.7</u>	--	<u>590.8</u>	--	<u>568.5</u>	--	
Total Main Stem Levees.....	2,215.7	2,208.9	25.4	1,928.7	47.7	677.8	--	562.6	--	2,126.1	13.6	2,094.8	35.8	
TRIBUTARY LEVEES IN MR&T PROJECT														
Lake Pontchartrain, LA,--NOD .....	17.4	17.4	--	17.4	--	--	--	--	--	17.4	--	17.4	--	
Yazoo River Basin—VXD .....	624.1	427.4	--	237.6	--	--	--	--	--	624.1	--	338.9	--	
Arkansas River-North Bank--														
VXD .....	61.5	56.2	--	56.2	--	8.3	--	8.3	--	47.4	--	47.4	--	
Red River Backwater—VXD.....	263.6	246.9	--	246.9 <sup>4</sup>	--	--	--	--	--	246.9 <sup>4</sup>	--	246.9 <sup>4</sup>	--	
St. Francis River—MD .....	308.2	302.9	--	302.9	--	--	--	--	--	301.0	--	133.5	--	



**TABLE 41-N**  
**(Continued)**

**RECAPITULATION**  
**PROJECT LEVEE TABLES 42-K, -L, AND -M**  
**(FISCAL YEAR 2004)**

Location	Levees and Floodwalls (Miles)					Berm <sup>5</sup> (Miles)				Surfaced Roads on Levees (Miles)			
	Built to Approved Grade and Section												
	Authorized for System	Total in Place This FY	This FY	Total Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Com- plete Thru This FY	Cur- rently Under Con- struction	In System When Com- pleted	Built This FY	Total Com- plete Thru This FY	Cur- rently Under Con- struction
Little River--MD .....	130.1	130.1	--	130.1	--	--	--	--	--	128.9	--	94.5	--
Lower White River—MD .....	95.6	85.9	--	84.1	--	--	--	--	--	94.0	--	81.0	--
Memphis Harbor--MD .....	10.5	10.5	--	10.5	--	7.0	--	7.0	--	10.5	--	10.5	--
Total Tributary Levees in MR&T Project .....	<u>1,511.0</u>	<u>1,277.3</u>	--	<u>1,085.7</u>	--	<u>15.3</u>	--	<u>15.3</u>	--	<u>1,470.2</u>	--	<u>970.1</u>	--
Grand Total in Project .....	3,726.7	3,486.2	25.4	3,014.4	47.7	691.2	--	577.9	--	3,596.3	13.6	3,064.9	35.8

1. Landside seepage berms only.

2. Subject to change as planning progresses.

3. 1996 Revised Project Design Flood flowline identified freeboard deficiencies.

4. Changed to correct previous error.

5. Relief wells have been used in lieu of seepage berms in some reaches of the Miss. River Levees.

**TABLE 41-O**

**CHANNEL IMPROVEMENTS:**

**NEW ORLEANS DISTRICT**

**(FISCAL YEAR 2004)**

Location	Year Initiated	In System When Completed	Built This FY	Total Complete Thru This FY	Percent Complete	Currently Under Construction
		(Miles)				
Bayou des Glaises diversion channel	1938	6.0	--	6.0	100	--
Bayous Rapides, Boeuf, and Cocodrie	1946	92.6	--	63.4	75	--
Charenton drainage and navigation canal	1939	6.3	--	6.3	100	--
Wax Lake Outlet	1938	15.7	--	15.7	100	--
Atchafalaya Basin Floodway	1933	244.2	--	186.4	76	--
Morganza Floodway	1941	3.3	--	3.3	100	--
Old River outflow channel	1956	8.3	--	8.3	100	--
Old River inflow channel	1960	2.3	--	2.3	100	--
Old River lock approach channels	1961	2.2	--	2.2	100	--
Baton Rouge Harbor (Devils Swamp)	1958	2.5	--	2.5	100	--
Teche-Vermilion Water Supply	1977	6.3	--	6.3	100	--
Old River Auxiliary Control Structure inflow channel	1986	1.9	--	1.9	100	--
Old River Auxiliary Control Structure outflow channel	1988	0.9	--	0.9	100	--
Caernarvon Freshwater Diversion channel	1988	1.7	--	1.7	100	--

**TABLE 41-P**

**CHANNEL IMPROVEMENTS:**

**VICKSBURG DISTRICT**

**(FISCAL YEAR 2004)**

Location	Year Initiated	In System When Completed	Built This FY (Miles)	Total Complete Thru This FY	Percent Complete	Currently Under Construction
BIG SUNFLOWER RIVER, ETC., MS						
Big Sunflower River.....	1947	199.1	--	199.1	100	--
Quiver River.....	1947	69.6	--	69.6	100	--
Deer Creek.....	1947	7.0	--	7.0	100	--
Steele Bayou.....	1947	54.9	--	54.9	100	--
Steele Bayou <sup>1</sup> .....	1965	71.2	--	71.2	100	--
Main Canal.....	1959	21.1	--	21.1	100	--
Main Canal <sup>2</sup> .....	1993	26.7	--	26.7	100	--
Black Bayou.....	1992	36.5	--	36.5	100	--
Big Sunflower River tributaries.....	1957	227.2	--	227.2	100	--
Quiver River tributaries.....	1960	35.4	--	35.4	100	--
YAZOO BACKWATER						
Yazoo Backwater.....	1960	39.9	--	39.9	100	--
YAZOO BASIN HEADWATER, MS						
Upper Yazoo Project.....	1976	179.0	11.0	91.5	51	8.0
Coldwater River.....	1941	54.6	--	54.6	100	--
Arkabutla Canal.....	1948	0.4	--	0.4	100	--
Tallahatchie Canal.....	1940	74.8	--	73.5	98	--
Little Tallahatchie River and Panola-Quitman Floodway.....	1939	48.0	--	48.0	100	--
Greenwood protection works.....	1971	2.9	--	2.9	100	--
Yacona River.....	1952	1.8	--	1.8	100	--
Bobo Bayou.....	1944	16.1	--	16.1	100	--
Cassidy Bayou.....	1934	69.0	--	69.0	100	--
Cassidy Bayou <sup>3</sup> .....	--	26.0	--	--	--	--
Bear Creek Diversion.....	--	4.8	--	--	--	--
Lake Cormorant.....	--	20.9	--	--	--	--
Hurricane Bayou.....	--	2.5	--	--	--	--
Opossum Bayou.....	--	20.8	--	--	--	--
Abaica Creek.....	--	7.7	--	--	--	--
Chicopa Creek.....	--	7.0	--	--	--	--
Bear Creek.....	--	23.3	--	--	--	--
Rocky Bayou.....	--	7.8	--	--	--	--
Whiteoak Bayou.....	--	55.9	--	--	--	--
Miscellaneous ditches.....	--	12.3	--	--	--	--
Yalobusha River.....	1939	46.0	--	46.0	100	--
Yazoo River.....	1940	160.2	--	160.2	100	--
Whittington Auxiliary Channel.....	1956	30.8	--	30.8	100	--
Tchula Lake.....	1964	26.4	--	26.4	100	--
David-Burrell Bayou.....	1957	40.4	--	40.4	100	--
McKinney Bayou.....	1960	3.5	--	3.5	100	--

**TABLE 41-P**  
**(Continued)****CHANNEL IMPROVEMENTS:**  
**VICKSBURG DISTRICT**  
**(FISCAL YEAR 2004)**

<b>Location</b>	<b>Year Initiated</b>	<b>In System When Completed</b>	<b>Built This FY (Miles)</b>	<b>Total Complete Thru This FY</b>	<b>Percent Complete</b>	<b>Currently Under Construction</b>
<b>YAZOO BASIN HEADWATER, MS</b>						
<b>(Continued)</b>						
Hillside Floodway.....	1964	11.0	--	11.0	100	--
Yazoo City protection works.....	1953	1.6	--	1.6	100	--
Ascalmore-Tippo Bayous .....	1975	30.2	--	15.1	50	--
Alligator-Catfish Bayou.....	1973	8.3	--	8.3	100	--
Pelucia Creek.....	1975	11.7	--	11.7	100	--
<b>BOEUF &amp; TENSAS RIVERS, ETC., LA AND AR</b>						
Bayou Lafourche .....	1949	45.3	--	45.3	100	--
Bayou Lafourche <sup>4,7</sup> .....	1972	43.0	--	4.4	10	--
Big & Colewa Creeks .....	1947	81.4	--	81.4	100	--
Big & Colewa Creeks <sup>5,7</sup> .....	1965	86.8	--	51.5	60	--
Tensas River .....	1947	96.5	--	96.5	100	--
Tensas River <sup>6</sup> .....	1968	165.0	--	61.0	37	--
Boeuf River, AR and LA.....	1953	103.9	--	103.9	100	--
Fleschmans Bayou, AR.....	1963	6.6	--	6.6	100	--
Caney Bayou, AR .....	1964	7.4	--	7.4	100	--
Canal 18, AR.....	1963	10.3	--	10.3	100	--
Big Bayou, AR.....	1952	33.3	--	33.3	100	--
Black Pond Slough, AR .....	1962	14.3	--	14.3	100	--
Bayou Macon, AR and LA .....	1959	150.8	--	150.8	100	--
Rush Bayou, AR .....	1964	6.7	--	6.7	100	--
Canal 19, AR.....	1957	50.2	--	50.2	100	--
Canal 43, AR.....	1956	34.5	--	34.5	100	--
Canal 81, AR.....	1957	32.7	--	32.7	100	--
Mill Bayou-Bayou Vidal-Bayou						
Vidal Cutoff .....	--	17.1	--	--	--	--
Kirsch Lake Canal .....	--	9.3	--	--	--	--
Canal 19 Extension .....	1964	9.4	--	9.4	100	--
Lake Chicot Pumping Plant .....	--	2.5	--	2.5	100	--
Mill Bayou .....	1955	4.8	--	4.8	100	--
<b>RED RIVER BACKWATER, LA</b>						
Tensas-Cocodrie Pumping Plant .....	1976	6.9	--	6.9	100	--
Six Mile Bayou, LA.....	--	1.5	--	1.5	100	--

1. Includes further work on 54.9 miles and adds 16.3 miles of channel to the project.

2. Includes further work on 21.1 miles and adds 1.1 miles of channel to the project.

3. Includes further work on 26.0 miles.

4. Includes further work on 38.6 miles and adds 4.4 miles of channel to the project.

5. Includes further work on 75.3 miles and adds 11.5 miles of channel to the project.

6. Includes further work on 96.5 miles and adds 68.5 additional miles of channel to the project.

7. Further work on these items has been deferred due to local oppositions and withdrawal of sponsorship by the levee district.

1. Not started.
2. Data for Stage 1 only.

TABLE 41-R

**PUMPING STATIONS:  
NEW ORLEANS DISTRICT  
(FISCAL YEAR 2004)**

Name	Authorized Size (CFS)	Percent Complete Thru This FY	Year Complete (Schedule/ Actual)	Rehabilitation Status (If Applicable)		
				Year Initiated	Percent Complete Thru This FY	Year Complete (Schedule/ Actual)
Bayou Yokely	489	100	1955	1990	100	1991(A)
Bayou Yokely Enlargement	568	100	1963	1990	100	1991(A)
Centerville	332	100	1964	1991	100	1992(A)
Ellerslie	136	100	1953	--	--	--
Franklin	144	100	1958	1992	100	1993(A)
Franklin Enlargement	144	100	1978	1992	100	1993(A)
Gordy	238	100	1964	--	--	--
Maryland	136	100	1957	1991	100	1992(A)
North Bend	52	100	1962	--	--	--
Tiger Island	75	100	1955	--	--	--
Wax Lake East	1,008	100	1961	1990	100	1992(A)
Wax Lake West	496	100	1965	1990	100	1992(A)
Teche Vermilion	1,300	100	1982	--	--	--
Pointe Coupee	1,500	100	1983	--	--	--
David Pond	<u>570</u>	100	2000	--	--	--
TOTAL	6,618					

TABLE 41-S

**PUMPING STATIONS:  
VICKSBURG DISTRICT  
(FISCAL YEAR 2004)**

Name	Authorized Size (CFS)	Percent Complete Thru This FY	Year Complete (Schedule/ Actual)	Rehabilitation Status (If Applicable)		
				Year Initiated	Percent Complete Thru This FY	Year Complete (Schedule/ Actual)
Chauvin Bayou, LA	250	100	1994	1991	100	
Bawcomville	270	100	1955	1992	100	1993
Jonesville	180	100	1952	--	--	--
Natchez Port	100	--	--	--	--	--
Wilson Point	50	--	--	--	--	--
Greenwood - Lee Street	90	100	1953	1952	--	--
Greenwood - Wilson Street	67	100	1953	1952	--	--
Greenwood - Walker Lake	675	100	1949	1952	--	--
Yazoo City	540	100	1954	1957	--	--
Columbia	45	100	1939	--	--	--
Calion	200	100	1959	--	--	--
McKinney Bayou, MS	250	100	1962	1961	--	--
Lake Chicot	6,500	100	1987	--	--	--
Tensas Cocodrie	4,000	100	1986	--	--	--
Yazoo Backwater	10,000	--	--	--	--	--
Natchez Area	300	--	--	--	--	--
Bushley Bayou	300	--	Indef <sup>1</sup>	--	--	--
Bushley Bayou	20	--	Indef <sup>1</sup>	--	--	--
Sicily-HAHA Bayou	750	100	2000	--	--	--
Sicily - Fool River	300	100	2000	--	--	--
Pelucia Creek - Rising Sun #1	10	100	1992	--	--	--
Pelucia Creek - Rising Sun #2	15	100	1992	--	--	--
Pelucia Creek Pump	75	100	1993	--	--	--
Below Red River	500	--	Indef <sup>1</sup>	--	--	--
Bayou Rapides	222	100	1936	--	--	--
Ouachita Parish, River Styx Bayou, LA	<u>500</u>	100	2000	--	--	--
Total	25,709					

<sup>1</sup> This project has been placed in the inactive category.

**TABLE 41-T**

**PUMPING STATIONS:**

**MEMPHIS DISTRICT**

**(FISCAL YEAR 2004)**

Name	Authorized Size (CFS)	Percent Complete Thru This FY	Year Complete (Schedule/ Actual)	Rehabilitation Status (If Applicable)		
				Year Initiated	Percent Complete Thru This FY	Year Complete (Schedule/ Actual)
Devall's Bluff	215	100	1949	1987	100	1989
Des Arc, Ark.	30	100	1954	--	--	--
Ensley	900	100	1966	--	--	--
DD #17, Station #1	375	100	<sup>1</sup>	--	--	--
Huxtable Pumping Plant	12,000	100	1977	--	--	--
Graham Burke	1,500	100	1964	--	--	--
Finley Street	100	100	1978	--	--	--
Dyersburg	26	100	1961	--	--	--
Cotton Slough	50	100	1964	--	--	--
West Hickman	190	100	1976	--	--	--
Cypress Creek	3,000	100	1944	--	--	--
Fairfax	53.5	100	1950	--	--	--
Goose Pond	110	100	1976	--	--	--
Marble Bayou	220	100	1952	--	--	--
Workhouse Bayou	520	100	1950	--	--	--
Nonconnah	1,620	100	1944	--	--	--
L&DD #3 Peafield	400	100	<sup>1</sup>	--	--	--
Treasure Island	150	100	1976	--	--	--
Lake No. 9	500	100	1981	--	--	--
Cairo 10th Street	65	100	1981	--	--	--
Cairo 28th Street	65	100	1981	--	--	--
DD #17, Station #2	700	100	1981	--	--	--
Drinkwater Sewer	150	100	1979	--	--	--
May Street	5	100	1948	--	--	--
Cairo 22nd Street	37	100	<sup>1</sup>	--	--	--
Gayoso Bayou	1,500	100	1915	--	--	--
Mud Lake	200	--	--	--	--	--
Madison	25	--	--	--	--	--
Cache River	200	--	--	--	--	--
New Madrid	1,500	--	--	--	--	--
St. John's Bayou	1,000	--	--	--	--	--
Drinkwater #2	<u>150</u>	100	2001	--	--	--
TOTAL	27,556.5					

<sup>1</sup> Unknown constructed by local interest.



**TABLE 41-U COSTS DURING FISCAL YEAR 2004**

Item	Construction	Maintenance	Other
FEDERAL FUNDS			
Flood control, Mississippi River and tributaries:			
St. Louis District:			
St. Francis Basin-Wappapello Lake	\$ --	\$ 6,997,331	\$ 0
Subtotal		6,997,331	0
Memphis District:			
Cache Basin, AR	--	--	--
Channel improvement	14,633,478	165,745,82	--
Eastern Arkansas Region (Comp)	1,048,969	--	--
Francis Bland Floodway Ditch (Eight Mile)	573,230	--	--
General investigations	--	-- 1,134,649	--
Helena Harbor, Phillips County	1,048,969	316,420	--
Hickman Bluff, KY	20,881	--	--
Horn Lake Creek Modification, MS	298,325	--	--
Inspection of Completed Works	--	782,694	--
L'Anguille River, AR	592	--	--
Little River Drainage	695	--	--
Mapping	--	389,600	--
Memphis Harbor (McKeller Lake)	--	1,787,442--	--
Nonconnah Creek, TN & MS	1,710,715	--	--
Nonconnah Creek, Environmental Enhancement	6,452	--	--
Nonconnah Creek, Flood Control Extension	20,456	--	--
Nonconnah Creek, Recreation Extension	12,154	--	--
Nonconnah Creek, Recreation Facilities	5,852	--	--
Mississippi River Levees	17,434,580	5,947,726	--
St. Francis River & Tributaries, AR	5,806,720	8,608,502	--
St. Johns Bayou & New Madrid	533,191	--	--
West Tennessee tributaries	86,042	--	--
White River Backwater	--	1,359,138	--
Wolf River	381,437		
Subtotal	43,655,259	45,176,394	1,134,649
Vicksburg District:			
Channel Improvement	12,104,200	15,432,982	--
General investigations	--	--	1,255,500
Inspection of completed works	--	332,149	--
Lower Arkansas – South Bank	--	228,935	--
Lower Arkansas River – North Bank, AR	--	93,507	--
Lower Red River--South Bank Red River Levee	--	323,746	--
Mapping	--	331,075	--
Mississippi River levees	23,704,868	1,695,294	--
Tensas Basin	77,308	5,687,144	--
Yazoo Basin Tribs	36,021,389	17,505,531	--
Greenwood Less Greenwood Protection	--	674,985	--
Greenville Harbor	--	176,940	--
Grenada Lake	--	7,222,979	--
Sardis Lake	--	8,067,855	--
Vicksburg Harbor	--	206,997	--
Subtotal	71,907,765	57,980,121	1,255,500

**TABLE 41-U**  
**(Continued)** **COSTS DURING FISCAL YEAR 2004**

Item	Construction	Maintenance	Other
New Orleans District:			
Atchafalaya Basin	17,987,848	12,711,578	--
Atchafalaya Basin Floodway System	6,642,493	1,943,558	--
B. R. Harbor Devil Swamp	--	100,156	--
Bayou Cocodrie and Tributaries	--	78,718	--
Bonnet Carre Spillway	--	2,187,844	--
Channel Improvement	7,637,691	15,070,697	--
General Investigations	--	--	5,043,407
Inspection of Completed Works	--	402,991	--
Louisiana Penitentiary Levee	11,378	--	--
Mapping	--	399,932	--
Mississippi Delta Region	3,092,134	666,523	--
Mississippi River Levees	4,069,154	2,358,290	--
Old River	--	8,613,981	--
Subtotal	39,440,699	44,534,267	5,043,407
<b>Total Federal Funds</b>	<b>\$155,003,722</b>	<b>\$154,688,093</b>	<b>\$7,433,556</b>
CONTRIBUTED FUNDS			
Memphis District			
Bayou Meto			14,219
Helena & Vicinity, AR			
Horn Lake Creek Modification, MS		104,037	
Millington & Vicinity, TN			36,865
Nonconnah Creek, Flood Control Extension		21,663	
Nonconnah Creek Recreation Extension		4,056	
Wolf River	--	--	796
Vicksburg District			
Southwest Arkansas			169,259
Southeast Arkansas Feasibility			307,971
New Orleans District:			
Morganza, LA to Gulf of Mexico			1,625,397
Louisiana Penitentiary Levee	--		134,789
<b>Total Contributed Funds</b>	<b>0</b>	<b>129,756</b>	<b>2,289,297</b>
<b>Grand Total, Federal and Contributed Funds</b>	<b>\$155,003,772</b>	<b>\$154,817,849</b>	<b>\$9,722,852</b>

**TABLE 41-V**

**STATEMENT OF ALLOTMENTS AND  
ACCRUED EXPENDITURES FOR FLOOD  
CONTROL, MISSISSIPPI RIVER AND  
TRIBUTARIES, FROM MAY 15, 1928,  
THROUGH SEP. 30, 2004**

District or Installation and Class of Work	Allotments	Accrued Expenditures	Unexpended Balance Sep. 30, 2004
ALLOTMENTS AND ACCRUED EXPENDITURES CHARGEABLE AGAINST FLOOD CONTROL ACT LIMITATIONS:			
COMPLETED WORKS:			
Waterways Experiment Station	\$ 874,000	\$ 874,000	\$ --
Office, Chief of Engineers	19,158	19,158	--
Rock Island District:			
S. G. & O. prior to Aug. 18, 1941	14,010	14,010	--
St. Louis District:			
S. G. & O. prior to Aug. 18, 1941	169,352	169,352	--
Subtotal	1,076,520	1,076,520	--
Memphis District:			
Des Arc, AR	178,925	178,925	--
Contraction works	8,692,791	8,692,791	--
DeValls Bluff, AR	231,215	231,215	--
Mapping	1,450,337	1,450,337	--
Memphis Harbor	18,736,432	18,736,432	--
New Madrid Floodway	6,521,543	6,521,543	--
Wolf River and tributaries	1,723,620	1,723,620	--
Roads on levees (Mississippi River levees)	12,426	12,426	--
S. G. & O. prior to Aug. 18, 1941	1,998,766	1,998,766	--
Subtotal	39,546,054	39,546,054	--
Vicksburg District:			
Boeuf Basin levees	2,764,605	2,764,605	--
Channel realignment, Arkansas River	125,074	125,074	--
Contraction works	1,972,183	1,972,183	--
Eudora Floodway	826,235	826,235	--
Vicksburg Harbor	4,664,515	4,664,515	--
Greenville Harbor	2,864,516	2,864,516	--
Grants Canal (Mississippi River levees)	7,070	7,070	--
Mapping	1,531,021	1,531,021	--
Jonesville, LA	172,950	172,950	--
Tensas National Wildlife Refuge, LA	3,980,000	3,980,000	--
Roads on levees	105,660	105,660	--
S. G. & O. prior to Aug. 18, 1941	2,350,201	2,350,201	--
Subtotal	57,184,031	57,184,031	--

**TABLE 41-V**  
**(Continued)****STATEMENT OF ALLOTMENTS AND  
ACCRUED EXPENDITURES FOR FLOOD  
CONTROL, MISSISSIPPI RIVER AND  
TRIBUTARIES, FROM MAY 15, 1928,  
THROUGH SEP. 30, 2004**

District or Installation and Class of Work	Allotments	Accrued Expenditures	Unexpended Balance Sep. 30, 2004
New Orleans District:			
Baton Rouge Harbor, LA	699,185	--	--
Atchafalaya River and Basin, LA	3,375,492	--	--
Bonnet Carre Spillway, LA	14,212,198	14,212,198	--
Contraction works	1,258,916	1,258,916	--
Mapping	1,112,967	--	--
Roads on levees	540,838	540,838	--
S. G. & O. prior to Aug. 18, 1941	2,701,566	2,701,566	--
Wax Lake Outlet and Charenton Canal	10,098,817	10,098,817	--
Morganza Floodway and structure	35,992,117	35,992,117	--
Lake Pontchartrain	5,513,110	5,513,110	--
Teche Vermilion Basin Water Supply	34,506,000	34,506,000	--
Old River	292,274,000	292,274,000	--
Atchafalaya Basin, rights-of-way and flowage, Bayou des Glaisses setback	387,917	387,917	--
Subtotal	402,673,123	402,673,123	--
All other completed items:			
Surveys under Sec. 10, Flood Control Act of 1928	4,995,215	4,995,215	--
Impounded savings	1,593,097	1,593,097	--
Plant transferred to revolving fund	24,924,578	24,924,578	--
OCE (portion of allotment transferred to revolving fund, Washington Dist.)	19,882	19,882	--
Subtotal	31,532,772	31,532,772	--
TOTAL COMPLETED WORKS	532,012,500	532,012,500	--
UNCOMPLETED WORKS:			
Rock Island District:			
Levees under Sec. 6, Flood Control Act of 1928	579,462	579,462	--
St. Louis District:			
Levees under Sec. 6, Flood Control Act of 1928	1,897,980	1,897,980	--
Subtotal	2,477,442	2,477,442	--
Memphis District:			
Mississippi River Levees	288,486,601	287,812,745	673,856
New Madrid	98,000	98,000	--
Channel improvement:			
Revetments	480,062,306	479,938,981	123,325
Dredging	58,566,439	58,566,439	--
Dikes	277,765,942	277,759,607	6,335

**TABLE 41-V**  
**(Continued)**  
**STATEMENT OF ALLOTMENTS AND**  
**ACCRUED EXPENDITURES FOR FLOOD**  
**CONTROL, MISSISSIPPI RIVER AND TRIBUTARIES,**  
**FROM MAY 15, 1928, THROUGH SEP. 30, 2004**

District or Installation and Class of Work	Allotments	Accrued Expenditures	Unexpended Balance Sep. 30, 2004
Memphis District: (Continued)			
Reelfoot Lake	439,434	439,434	--
Reelfoot Lake, Lake No. 9, TN-KY	7,896,000	7,896,000	--
St. Francis Basin:			
Wappapello Lake	9,019,908	9,019,908	--
St. Francis River and tributaries	326,829,412	326,496,602	332,810
Big Slough and Mayo Ditch	965,429	965,429	--
Little River Drainage	52,486,092	52,486,092	
Lower White River:			
Clarendon Levee	652,115	652,115	0
Augusta to Clarendon, AR	1,788,846	1,788,846	--
White River backwater levee, AR	10,624,501	10,624,501	--
Horn Lake Creek & Tribs	2,195,300	2,187,930	7,370
Horn Lake Creek Modification, MS	805,900	804,066	934
Hickman Bluff, KY	17,339,600	17,293,035	46,565
Memphis Harbor Ensley Berm	3,510,000	3,510,000	--
Nonconnah Creek, Flood Control Ext.	300,000	300,000	
Nonconnah Creek Recreation Facility	16,910	16,752	158
Nonconnah Creek Environmental Enhancement	68,510	67,932	578
Nonconnah Creek, TN & MS	16,519,399	16,518,776	623
Nonconnah Creek, Recreation Extension	36,000	36,000	
West Memphis and Vicinity	571,000	571,000	--
Whiteman's Creek, Ar	1,895,500	1,895,010	490
Levees under Sec. 6, Flood Control Act of 1928	108,651	108,651	--
West Tennessee Tributaries	54,384,255	54,383,795	460
Helena Harbor, Phillips County, AR	14,473,700	14,473,700	0
Helena & Vicinity, AR	7,585,478	7,584,319	1,159
Cache Basin, AR	10,850,000	10,849,291	709
West Kentucky Tributaries	1,440,000	1,440,000	0
Mud Lake Pumping Station, TN	100,000	100,000	0
L'Anguille River	237,432	236,840	592
Eight Mile Creek	3,896,000	3,895,161	839
St. Johns Bayou & New Madrid Floodway	5,785,847	5,782,638	3,209
Eastern Arkansas Reg (Comp)	37,927,361	37,722,575	204,786
St. Francis Bland Floodway Ditch (Eight Mile Creek)	5,549,789	5,549,633	156
Wolf River, Memphis, TN	465,000	381,437	83,563
Subtotal	1,701,741,757	1,700,274,713	1,467,044
Vicksburg District:			
Mississippi River Levees	388,240,977	388,066,995	173,982
Section 6 Levees	9,000	9,000	--
Lower Arkansas River:			
North Bank	7,049,414	7,049,414	--
South Bank	15,676,286	15,676,286	--
Tensas Basin:			
Lake Chicot Pumping Plant	95,639,986	95,639,945	41
Tensas River	41,505,235	41,505,235	--
Red River Backwater:			
Below Red River	639,400	639,400	--

TABLE 41-V  
(Continued)STATEMENT OF ALLOTMENTS AND  
ACCRUED EXPENDITURES FOR FLOOD  
CONTROL, MISSISSIPPI RIVER AND  
TRIBUTARIES, FROM MAY 15, 1928,  
THROUGH SEP. 30, 2004

District or Installation and Class of Work	Allotments	Accrued Expenditures	Unexpended Balance Sep. 30, 2004
Red River Backwater Levee, LA	137,515,254	137,515,021	233
Tensas Cocodrie Pumping Plant	56,071,200	56,071,167	33
Lower Red River South Bank Red River Levees	756,300	756,300	--
Channel improvement:			
Revetments	563,203,704	563,182,207	21,497
Dredging	23,919,516	23,919,516	--
Dikes	201,056,175	200,991,622	64,553
Levees under Sec. 6, Flood Control Act of 1928	958,175	958,175	--
Ouachita River Levees	400,000	400,000	--
Yazoo Basin:			
Sardis Lake	26,502,400	26,502,400	--
Enid Lake	21,292,400	21,292,400	--
Arkabutla Lake	16,000,700	16,000,700	--
Grenada Lake	45,401,494	45,401,494	--
Greenwood	11,543,000	11,543,000	--
Belzoni	316,656	316,656	--
Yazoo City	2,205,611	2,205,611	--
Will M. Whittington auxiliary channel	10,950,966	10,950,966	--
Big Sunflower, etc.	103,611,592	103,530,946	80,646
Main Stem	34,698,248	34,698,226	22
Upper Yazoo Projects	211,916,646	211,757,736	158,910
Yazoo Basin--Tributaries			
Tributaries (Except Ascal-Tippo-Opossum Bayous)	107,519,582	107,519,572	10
Tributaries--Bank Stabilization	612,484	612,484	--
Ascalmore-Tippo-Opossum Bayous	23,977,200	23,977,200	--
Yazoo Basin Backwater			
Yazoo Backwater less Rocky Bayou	57,137,435	57,093,930	43,505
Rocky Bayou	3,401,500	3,401,500	--
Yazoo Backwater Pumping Plant	34,578,724	18,442,831	16,135,893
Muddy Bayou	5,145,200	5,145,200	--
Yazoo Backwater, F&WL Mitigation	6,415,500	6,415,405	95
Yazoo Basin Reformulation	31,583,143	31,544,053	39,090
Streambank Erosion Control, Eval. and Demo.	14,767,000	14,767,000	--
Yazoo Basin, Demonstration Erosion Control	325,964,741	325,885,551	79,190
Dam Safety Assurances-Sardis Dam	23,235,000	23,235,000	0
Subtotal	2,651,417,845	2,634,620,143	16,797,703
New Orleans District:			
Bayou Cocodrie and Tributaries	5,008,008	5,008,008	--
Miss. & LA Estuarine	4,636,591	4,634,585	2006
Channel Improvement:			
Dredging	35,945,266	35,945,266	--
Revetments	1,081,522,793	1,081,494,599	28,194
Louisiana Penitentiary Levee	18,104,502	18,048,724	55,778
Lower Red River (South Bank Levees)	18,056,600	18,056,600	--

**TABLE 41-V  
(Continued)****STATEMENT OF ALLOTMENTS AND  
ACCRUED EXPENDITURES FOR FLOOD  
CONTROL, MISSISSIPPI RIVER AND  
TRIBUTARIES, FROM MAY 15, 1928,  
THROUGH SEP. 30, 2004**

<b>District or Installation and Class of Work</b>	<b>Allotments</b>	<b>Accrued Expenditures</b>	<b>Unexpended Balance Sep. 30, 2004</b>
New Orleans District (Continued):			
Levees Under Sec. 6, Flood Control Act of 1928	200,680	200,680	--
Mississippi River Levees	379,470,524	379,407,965	62,559
Mississippi Delta Region	99,178,542	99,107,536	71,006
Atchafalaya Basin Floodway:			
Atchafalaya Basin	955,196,661	955,057,068	139,594
Atchafalaya River Navigation	303,463	303,463	--
Atchafalaya Basin Floodway System	107,064,814	104,933,481	2,131,333
Subtotal	2,704,688,444	2,702,209,353	2,479,091
TOTAL UNCOMPLETED WORKS	7,060,325,488	7,039,581,650	20,743,838
ADVANCE ENGINEERING AND DESIGN (CONSTRUCTION)			
Memphis District:			
L'Anguille River Basin, AR	150,000	150,000	--
Reelfoot Lake, Lake No. 9	30,000	30,000	--
Cache River	420,000	420,000	--
Big Creek and Tributaries, Lower White River	365,000	365,000	--
Clarendon Levee, Lower White River	65,000	65,000	--
West Kentucky Tributaries	175,000	175,000	--
Mud Lake Pumping Station, TN	350,000	350,000	--
Harris Fork Creek, KY & TN	540,000	540,000	--
Subtotal	2,095,000	2,095,000	--
Vicksburg District:			
Yazoo Basin, Big Sunflower River, Steele Bayou	29,700	29,700	--
Tensas - National Wildlife Refuge, LA	200,000	200,000	--
Subtotal	229,700	229,700	--
New Orleans District:			
Mississippi Delta Region (EP 309)	69,753	69,753	--
Teche Vermilion Basin-Water Supply	1,109,000	1,109,000	--
East Rapides & S. Central Avoyelles Parishes	965,247	965,247	--
Subtotal	2,144,000	2,144,000	--
TOTAL ADVANCE ENGINEERING AND DESIGN	4,468,700	4,468,700	--
TOTAL COMPLETED WORKS, UNCOMPLETED WORKS AND ADVANCE ENGINEERING AND DESIGN	7,596,806,693	7,576,062,850	20,743,838

**TABLE 41-V**  
**(Continued)****STATEMENT OF ALLOTMENTS AND  
ACCRUED EXPENDITURES FOR FLOOD  
CONTROL, MISSISSIPPI RIVER AND  
TRIBUTARIES, FROM MAY 15, 1928,  
THROUGH SEP. 30, 2004**

District or Installation and Class of Work	Allotments	Accrued Expenditures	Unexpended Balance Sep. 30, 2004
RECREATION FACILITIES--COMPLETED PROJECTS			
Eight-Year Project Funds			
St. Louis District:			
Wappapello Lake, MO	2,405,300	2,405,300	--
Wappapello Lake, MO, Rockwood Landing	203,286	203,286	--
Subtotal	2,608,586	2,608,586	--
Vicksburg District:			
Sardis Lake	1,584,339	1,584,339	--
Enid Lake	2,268,209	2,268,209	--
Arkabutla Lake	2,189,280	2,189,280	--
Grenada Lake	1,631,281	1,631,281	--
Subtotal	7,673,109	7,673,109	--
Total Eight-Year Program Funds	10,281,695	10,281,695	--
Total chargeable against Flood Control Act Limitations excluding flood control emergencies	7,607,088,388	7,586,344,545	20,743,843
Total maintenance since Jul. 18, 1941	4,012,706,903	4,011,068,318	1,638,586
Total rehabilitation	31,113,000	31,113,000	--
Total flood control emergencies	14,900,300	14,900,300	--
Total general investigations	156,597,640	156,380,458	217,182
Total flood control, MR&T appropriations	11,822,406,231	11,799,806,621	22,599,610
Appropriations in addition to flood control, MR&T Other appropriations itemized in footnote (1), pp. 2068-69, Annual Report for 1953	32,068,909	32,068,909	--
Grand total appropriated to Sep. 30, 2003	11,854,475,140	11,831,875,530	22,599,610

Note: Preauthorization study costs chargeable to the MR&T authorization have been transferred to completed work. Costs not chargeable have been excluded from this report.



TABLE 41-W

## COST AND FINANCIAL STATEMENT

Project	Funding	FY 01	FY 02	FY 03	FY04	Total Sep. 30, 2004
Mississippi River and tributaries (Regular Funds) <sup>1</sup>	General investigations:					
	Allotted	9,326,826	7,960,700	7,323,000	7,224,000	156,597,640
	Cost	8,815,991	7,985,147	8,325,015	7,433,556	156,380,459
	Construction (includes advance engineering and design):					
	Allotted	193,639,344	182,406,588	161,733,375	160,478,100	7,426,905,488
	Cost	191,326,010	178,368,141	158,042,921	155,003,722	7,406,161,652
	Maintenance					
	Allotted	156,492,122	155,624,712	173,121,625	154,605,900	4,012,706,903
	Cost	155,041,146	156,017,523	173,655,475	154,688,093	4,011,068,297
	Rehabilitations					
	Allotted	--	--	--	--	31,113,000
	Cost	--	--	--	--	31,113,000
	Flood control emergencies (Maintenance)					
	Allotted	--	--	--	--	14,885,992
	Cost	--	--	--	--	14,885,992
(Contributed Funds)	New Work:					
	Contributed	--	--	--	--	34,339,413
	Cost	--	--	--	--	33,270,005
	Maintenance					
	Contributed	1,977,852	4,326,000	1,391,824	310,000	20,718,034
	Cost	2,022,470	2,955,166	2,416,581	259,512	18,156,884

## 1. Appropriations were as follows:

Appropriations chargeable against Flood Control Act authorizations:		
Flood Control, MR&T except for emergencies (excludes Maintenance allotments Aug. 18, 1941, through Sep. 30, 2004):		
Net total allotted for works under Mississippi River Commission:	7,596,386,916	
Eight-Year Program Funds, Construction General:	10,281,695	
Surveys under Sec. 10, Flood Control Act of 1928 (not under MRC):	4,995,215	
Transferred to revolving fund:	24,944,460	
Impounded savings:	1,593,097	7,638,201,383
Flood control emergencies:		
Net total allotted:	14,885,922	
Impounded savings:	14,378	14,900,300
Additional funds not chargeable against Flood Control Act authorizations:		
Appropriations for Flood Control, MR&T, except for flood control emergencies:		
General investigations:	156,597,640	
Maintenance allotments Aug. 18, 1941, through Sep. 30, 2001	4,012,706,903	4,169,304,543
Appropriations in addition to appropriations for Flood Control, MR&T (itemized in footnote (1), pp 2068-69, Annual Report for 1953):	32,068,909	
Budgetary and OCE Reserves:		
Grand total:		11,854,475,139

**TABLE 41-W**  
**(Continued)**

**COST AND FINANCIAL STATEMENT**

<b>Project</b>	<b>Funding</b>	<b>FY 01</b>	<b>FY 02</b>	<b>FY 03</b>	<b>FY 04</b>	<b>Total Sep. 30, 2004</b>
Reconciliation of appropriations and allotments:						
Total allotted to Sep. 30, 2004					11,822,927,989	
Transferred to revolving fund:					24,944,460	
Surveys under Sec. 10, Flood Control Act of 1928 (not under MRC):					4,995,215	
Impounded savings withdrawn by Chief of Engineers:					1,607,475	
Total Appropriations to Sep. 30, 2001:						11,854,475,139
Appropriations for past four reporting periods were as follows:						
		FY 01: \$359,458,292				
		FY 02: \$345,922,000				
		FY 03: \$342,178,000				
		FY 04: \$322,208,000				

2. Totals for General Investigations include four projects transferred from Construction totals per DAEN-CWB-W, Aug. 4, 1978, teletype.

**TABLE 41-X**

**MISSISSIPPI RIVER AND TRIBUTARIES**

**ACTIVE GENERAL INVESTIGATIONS**

**(96X3112)**

Item and CWIS Number	FISCAL YEAR COST		
	Federal	Non-Federal	Total
SURVEYS (Category 110)			
<u>Flood Damage Prevention (112)</u>			
<u>Vicksburg District</u>			
Southwest Arkansas – 010436		169,259	169,269
Southeast Arkansas Feasibility - 12756	252,292	307,971	560,263
Subtotal	252,292	477,230	729,522
Total (Category 112)	252,292	477,230	729,522
<u>Flood Damage Prevention-Recon Study (113)</u>			
<u>New Orleans District</u>			
Morganza, LA to the Gulf of Mexico – 012875	-1381	1,625,397	1,624,016
Atchafalaya River Bayous Chene Boeuf & Black – 013771		134,789	134,789
Subtotal	-1381	1,760,187	1,758,805
<u>Memphis District</u>			
Millington and Vinicity, TN - 81375	140	36,865	37,005
Fletcher Creek, TN - 81409	27,081	0	27,081
Subtotal	27,222	36,865	64,086
<u>Vicksburg District</u>			
Coldwater Below Arkabutla Lake, MS – 081356	377,443	0	377,443
Subtotal	377,443		377,443
TOTAL (Category 113)	404,665	36,865	441,529
Flood Damage Prevention – Feasibility Study (114)			
<u>Memphis District</u>			
Germantown, TN – 081361	113,950	0	113,950
Millington & Vicinity, TN – 081375	69,690		69,690
Subtotal	183,640		183,640
<u>New Orleans District</u>			
Donaldsonville, LA – 013510	819,435		819,435
Alexandria, LA to the Gulf (Rapides Parish) – 081308	154,100		154,100
Subtotal	973,535		973,535
TOTAL (Category 114)	1,157,175	0	1,157,175
<u>Special Reconnaissance Study (115)</u>			
<u>Vicksburg District</u>			
Spring Bayou, LA – 081338	203,328	0	203,328
TOTAL (Category 115)	203,328	0	203,328
TOTAL (Category 110)	2,143,515	2,274,281	4,417,797

**TABLE 41-X**  
**(Continued)**

**MISSISSIPPI RIVER AND TRIBUTARIES**  
**ACTIVE GENERAL INVESTIGATIONS**  
**(96X3112)**

Item and CWIS Number	FISCAL YEAR COST		
	Federal	Non-Federal	Total
COLLECTION AND STUDY OF BASIC DATA (Category 120)			
New Orleans District – Surveys, Gages & Observations – 81900	173,893	0	173,893
Vicksburg District - Surveys, Gages & Observations - 81900	295,000	0	295,000
Memphis District - Surveys, Gages & Observations - 81900	159,219	0	159,219
TOTAL (Category 120)	628,112	0	628,112
CONTINUATION OF PLANNING & ENGINEERING (Category 140)			
<u>Flood Control Projects (140)</u>			
<u>Memphis District</u>			
Reelfoot Lake, TN & KY, - 012394	651	0	651
Wolf River, Memphis, TN – 013157		796	796
<u>New Orleans District</u>			
Morganza, LA to Gulf of Mexico – 012875	3,897,361	0	3,897,361
TOTAL (Category 140)	3,898,012	796	3,898,808
PRE-CONSTRUCTION ENGINEERING & DESIGN (Category 160)			
<u>Flood Control Projects (162)</u>			
<u>Memphis District</u>			
Bayou Metro Basin, AR - 81307	763,916	14,219	778,136
Subtotal	763,916	14,219	778,136
TOTAL (Category 160)	763,916	14,219	788,136
GRAND TOTAL MR&T GENERAL INVESTIGATIONS	7,433,556	2,289,297	9,722,852

